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Duplicate

John R. Webb
June 29th
1842

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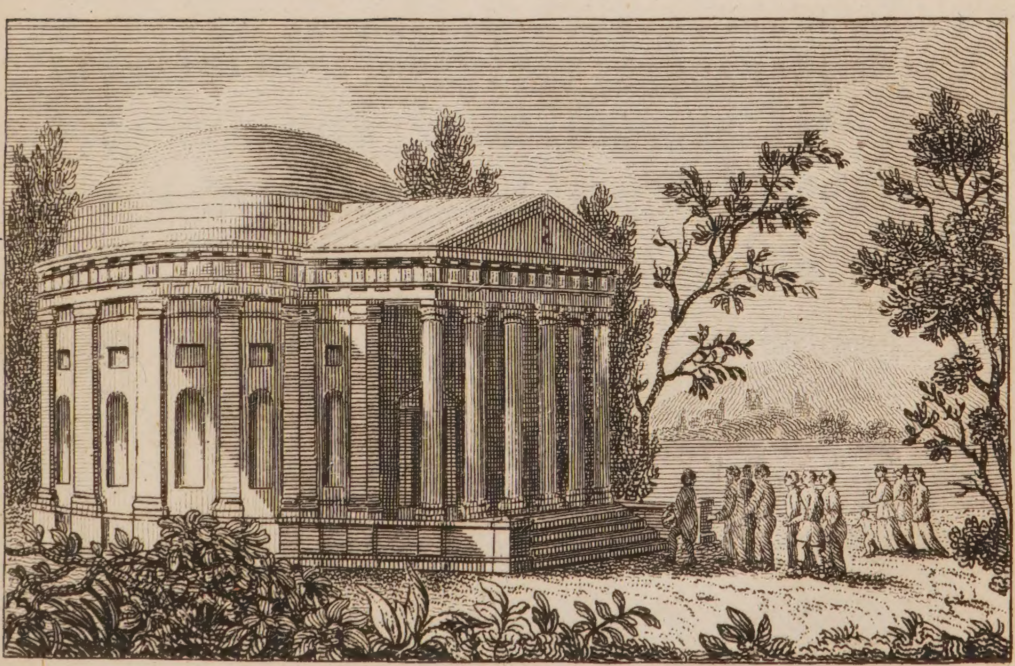
CASES and PRACTICAL REMARKS
in *SURGERY*,

with SKETCHES of MACHINES,
ſimple in their conſtruction,
eaſy in their application,
and of APPROVED USE.

The SECOND EDITION,
with large additions and emendations,

By BENJAMIN GOOCH
SURGEON.

VOL. II.



Patet Omnibus.

NORWICH,
printed for the AUTHOR,
by W. CHASE and ſold by him,
and the Bookſellers in LONDON.
MDCCLXVII.

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TO

WILLIAM FELLOWES, Eſq;

OF

SHOTTESHAM in NORFOLK.

SIR,

IT was your erecting an Infirmary for the benefit of the poor, which gave me an opportunity of making ſome of the following obſervations in Surgery: and when the opinion of my friends inclined me to publiſh them, a ſenſe of my obligations to you called for this profeſſion of my gratitude.

PROVIDENCE, that wiſely orders all things, has bleſſed you with an ample fortune; it is a bleſſing becauſe you employ it to the beſt purpoſes:

the compaſſion you ſhew to the neceſſitous and miſerable, and the conſtant care you take to ſupply their wants, and relieve their diſtreſſes, make your name revered, by more than thoſe who are daily objects of your bounty, and will ever be remembered.

THIS benevolence of heart, which makes you the Guardian of the poor, makes you ſtill more extenſively beneficial: your ſtrict impartiality in the adminiſtration of juſtice, and ſuperior abilities moſt readily exerted on all occaſions, for the common good of mankind, render you an univerſal Friend and Benefactor.

I am, Sir,
Your moſt obliged,
humble Servant,
B. GOOCH.

THE

PREFACE.

IN the laſt half century, the knowledge of Surgery has been much advanced by a general ſpirit of emulation, which ſeems to have prevailed throughout moſt parts of *Europe* ; it has been cultivated here, by men of great application and abilities in the profeſſion, and the benevolence of the public has coöperated with their private endeavours : for, to the immortal honor of this kingdom, in leſs than half that period of time, many Hoſpitals have been founded, and are now well ſupported, by voluntary contributions ; which not only afford the beſt relief to the greateſt and moſt deplorable objects of charity, but have a direct tendency to promote and perfect the knowledge of this art, making the benefit extend to all ranks of people.

In the winter of the year 1758, which I ſpent in *London*, I received a meſſage from the late Lord Biſhop of *Norwich*, by Mr. *Stillingfleet*, a Gentleman well known in the literary world; and accordingly I waited upon his Lordſhip. From ſeveral conferences with him in *London*, and afterwards in *Norwich*, and the ſteps that were taken in conſequence thereof, concerning erecting a general Hoſpital for the County of *Norfolk* and the City of *Norwich* jointly, I have good reaſons to believe, that had he lived and continued Biſhop of *Norwich*, ſuch a beneficent Eſtabliſhment wou'd have been completed before now; as every attempt of this nature has happily ſucceeded in this kingdom, to the wiſh of its promoters: and I hope that charitable and pious ſcheme will be revived and attended with all imaginable ſucceſs; nothing ſeems wanting even now to accompliſh it, but to have a ſubſcription properly opened.

IT may be truly ſaid, that Surgery is arrived to ſuch a degree of perfection in *Great Britain*, as leaves no room for *France* any longer to boaſt of her ſuperiority; but tho'

Anatomy and every branch of Surgery flouriſh, and are accurately taught in *London*, by the moſt celebrated men, making a journey to *Paris* unneceſſary to finiſh a Surgeon's education, ſtill we muſt think the *Pariſians* happy in their late very excellent inſtitution, the Royal Academy of Surgery, chiefly owing to two great men, *Mareſchal* and *Peyronie*. (*a*)

Read Serjeant *Wiſeman's* Epiſtle Dedicatory before his excellent chirurgical works.

RECORDING memorable facts has been looked upon as a laudable undertaking in all ages and countries, even before there were any regular profeſſors of the medical art in the world; and though the fundamental rules of Surgery are ſo well known and eſtabliſhed, that little ſeems left to be done in thoſe points, yet making obſervations carefully, and communicating them

faithfully,

(*a*) *Monſ. de la Peyronie* left at his death, the greater part of a large fortune he had acquired by his profeſſion, for the advancement of Surgery, particularly to the Univerſity of *Montpelier*, where he had been educated: and among other donations he added 300 livres to the golden prize medal annually given by the Royal Academy of Surgery at *Paris*, which was originally but 200.——See the panegyric or elogy upon this great man, prefixed to the ſecond vol. of the mem. of that Society, faithfully, with the particular treatment of the moſt remarkable caſes, as well unfavourable as favourable in their events, will be of ſingular ſervice, and prove the ſureſt guides in practice, on various occaſions. Theſe conſiderations make me wiſh, that every attentive practitioner wou'd ſhew his inclination of being uſeful, in this manner to the community, in the plaineſt language, with ſuch conciſeneſs and perſpicuity, as are beſt adapted to the relation of matters of fact; and the candid will excuſe little errors of diction or otherwiſe.

WHILST I was confined at *Bath* ſome years ago, I wrote the firſt edition of my Obſervations in Surgery; and after adding a few ſketches, more fully to illuſtrate ſome of the caſes, I ſhewed them to my friends, whoſe approbation determined me to publiſh them.

THE reception they met with have encouraged me to offer a ſecond edition, with additions upon the ſame plan; hoping that what was originally intended for a confined purpoſe, may prove more extenſively uſeful.

Greater attention and aſſiduity in diſcharging the duty of my profeſſion, than was conſiſtent with my infirm ſtate of health, brought my life into imminent danger, and obliged me to retire from buſineſs; but having long deſigned a ſecond edition, I wrote at intervals when able, and at other times employed an Amanuenſis, during a very tedious confinement.

It having pleaſed God, in his infinite mercy and goodneſs, to enable me, I have carefully reviſed and corrected theſe papers, and moſt heartily wiſh they may anſwer the end propoſed in publiſhing them: for to promote, in any degree, the benefit of mankind, and the improvement of a profeſſion I highly regard, will afford me one of the greateſt pleaſures I am capable of enjoying, in the evening of my days.

Haleſworth,
September the 19th, 1767.

POSTSCRIPT.

I HOPE my intention will be my apology, and that the following propoſition will not be deemed an unbecoming liberty, which I ſubmit with all imaginable deference, to the conſideration of thoſe Gentlemen, concerned in the management of Hoſpitals, in any part of this Kingdom, as well the Governors as the Phyſicians and Surgeons. The propoſition is, how far it might be beneficial, and conducive to the edification of pupils, to have the neateſt, beſt and moſt complete ſets of modern inſtruments, and machines of every kind, for the uſe of the Hoſpital; with a ſkeleton, and a few other practical, anatomical preparations, to have recourſe to occaſionally, and a ſuitable collection of practical books, in Latin, French, and Engliſh, kept in a room appropriated to this purpoſe, under the care and direction of the Houſe-Surgeon; allowing him to ſhew them to the pupils, under due reſtrictions and regulations. By theſe means thoſe who are emulous and ſtudiouſly inclined, will have the beſt opportunity of being properly informed, and of getting clear and adequate ideas of the things eſſentially neceſſary to be known, to regulate their future purſuits and practice: and by making them early the objects of their ſtudy and attention, aſſiſted by the communications and explanations of the Gentlemen intruſted with this part of their education, they may receive inexpreſſible advantages.

The expence to the hoſpital fund, in furniſhing this requiſite proviſion, wou'd be very trifling, compared with the benefit that I humbly conceive would accrue from it, by improving and diffuſing the knowledge of Surgery in theſe fundamentals, wherein the general good of mankind is ſo manifeſtly concerned: and the lectures given, by the Surgeons of Hoſpitals, to their pupils, upon extraordinary caſes, demonſtrating to them the reaſons of their practice, muſt prove very inſtructive.

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Remarks upon the contents of incyſted tumors, to be compared with thoſe at the end of *Wens*, Pag. 283, and at Pag. 381.

Before and ſince the following ſheets were ſent to the preſs, I have proved by experiments, beyond queſtion, that the contents of the three incyſted tumors called *Wens*, going under the denomination of *Steatoma*, *Atheroma*, and *Meliceris*, are inſpiſſated lymph, appearing under different degrees of inſpiſſation.——The laſt experiment I made was before a Phyſician and Surgeon, upon a *Meliceris*, that I very lately took off a perſon's head; on which part this *Species* of tumor is moſt frequently found. The fluid contained in it, inſpiſſated with heat like the white of an egg, and the cyſt, by boiling in water, ſoon became white, and almoſt as hard as horn.—And I am inclined to think glandular tumors generally proceed from lymph.

ERRATA.

Page 10 line 16, put but for and.—P 42 l. 2 and 17, put out u in electuary.—P. 47 l. 24, write Julep for Julip.—P. 89 l. 19, breadth for breath.—P. 140 l. 13, pleuritic for pleuretic.—P. 140 laſt l. entreaty for intreaty.—P. 144 l. 3, pleuritic for pleuretic.—P. 144 laſt l. del. s in ribs.—P. 180 l. 18, put has for have.—P. 273, add date to letter, *Shotteſham, June* the 20th, 1758.—P. 279 l. 5, whom for who.—P. 281 l. 22, add right before *Trapezius*.—P. 288 note l. 2, *Theoriam*.—P. 293, marginal note, extemporaneous.—P. 296 l. 5, write œdematous inſtead of ædematous.—P. 299 make a daſh after *obſta*.—P. 311 add in Surgery and the page: and towards the concluſion of the note in that page, write *Belloq's* for *Belloy's*.—P. 337, add other after ſome.—P. 350, in explanation of the plate, put 15 for 14.—P. 355 add, I think, before *Puff-Ball*.—P. 382 l. 12, put 17 for 15.—P. 383 del. The at the bottom of the text.—In explanation at P. 384, put 17 for 15.—P. 417 l. 11, laudanum.—P. 418 l. 1, *materia*.—P. 419 put where for were, in the laſt line but one.

DIRECTIONS to the Book-Binder.

Place before Treatiſe on Wounds the Plate of the *Samaritan*; and before the Caſes and Remarks, that of the Temple of *Æſculapius*.

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CASES AND REMARKS IN SURGERY.

A caſe of a fractured ſcull in an old man.

March the 19th, 1749.

M. H. a robuſt labouring Man, aged ſixty-one, received a blow upon his head, with the end of a rafter: he inſtantly fell down deprived of ſenſe and motion, and was carried home as a dead man; but ſhewed ſigns of life ſoon after. A violent *Ecchymoſis* appeared, without any breach of the ſkin; upon ſcalping, the ſame day, a very extenſive fracture was diſcovered, with a great comminution and depreſſion of the ſuperior part of the right parietal bone: as ſoon as the *hæmorrhage* was reſtrained, the trephine was applied, and it was found neceſſary to make ſix perforations, in order to remove the fragments and depreſſed pieces of the *Cranium* then in view; after the removal of them, we obſerved a ſeparation of the *Dura Mater* from the *Cranium*, much beyond the perforations.

After the operation, the patient was dreſſed as uſual in ſuch caſes, was let blood frequently, and kept to a ſtrict regimen, laxatives being adminiſtered occaſionally. He recovered his ſenſes perfectly in about ten days; the wound had a kind aſpect, and the ſymptomatic fever abated, which gave us great hopes of his recovery.

As the digeſtion advanced, we obſerved a farther ſeparation of the *Dura Mater* from the *Cranium*, at the ſuperior and moſt concave part of the parietal bone, which continued as far as the inferior and depending point, where there was a lodgement of matter at every dreſſing; the diſcharge ſeemed now more than a well conditioned wound, of that apparent ſize, ought to produce, his pulſe became quicker, with great reſtleſsneſs, and ſoon after he fell into a *Stupor*, as at firſt.

THESE threatening ſymptoms returning, and growing worſe every hour, we were reduced to great difficulty, to know how to act with the ſtrongeſt probability of relieving our patient, but upon obſerving whence moſt matter proceeded at every dreſſing, underneath the *Cranium*, at length we reſolved to remove another portion of the ſcalp, beginning at the ſuperior part, deſcribing the ſegment of a circle towards the *Occiput*, and ſo coming round to the inferior part of the firſt inciſion. This ſtep diſcovered to us, at the moſt depending part, a triangular ſharp-pointed fragment of the *Cranium*, ſtruck into, if not quite through the *Dura Mater*, whence the matter had iſſued at every dreſſing, for three or four days; and now we cou'd alſo diſcern ſmall fiſſures extending, in various directions, into both frontal and temporal bone.

Under theſe circumſtances, after mature deliberation, we thought it moſt adviſeable to remove the whole arch of bone, from which the *Dura Mater* was detached, as has been deſcribed, which, being impracticable by any other means, was effected by ſeven perforations of the trephine, on *April* the 1ſt. After this ſecond operation, and extracting the triangular piece of bone, he grew immediately better, and every bad ſymptom gradually vaniſhed.

In the beginning of *July*, he was in a condition to walk two miles every day to be dreſſed; but it was more than a year before the cicatrice was perfected; and afterwards veſicles now and then aroſe, broke, diſcharged a little, and then healed without any difficulty, by the common applications.

The ſubſtance that ſupplied the loſs of the *Cranium* never entirely oſſified, but in a young ſubject probably it wou'd have acquired ſuch a degree of hardneſs, or ſolidity, as conſtitutes bone.

In order to guard the brain againſt external injuries, he conſtantly wore a thin iron, or tin plate, lined with ſome ſoft material, as long as he lived; following his ordinary laborious employment many years, till he was incapacitated by being grievouſly afflicted with the ſtone in his bladder; of which diſeaſe he died, and was buried before I received intelligence of his death, or I wou'd, if poſſible, have obtained leave to have inſpected his head.

Plate I. exhibits a view of this fracture.

PLATE I.

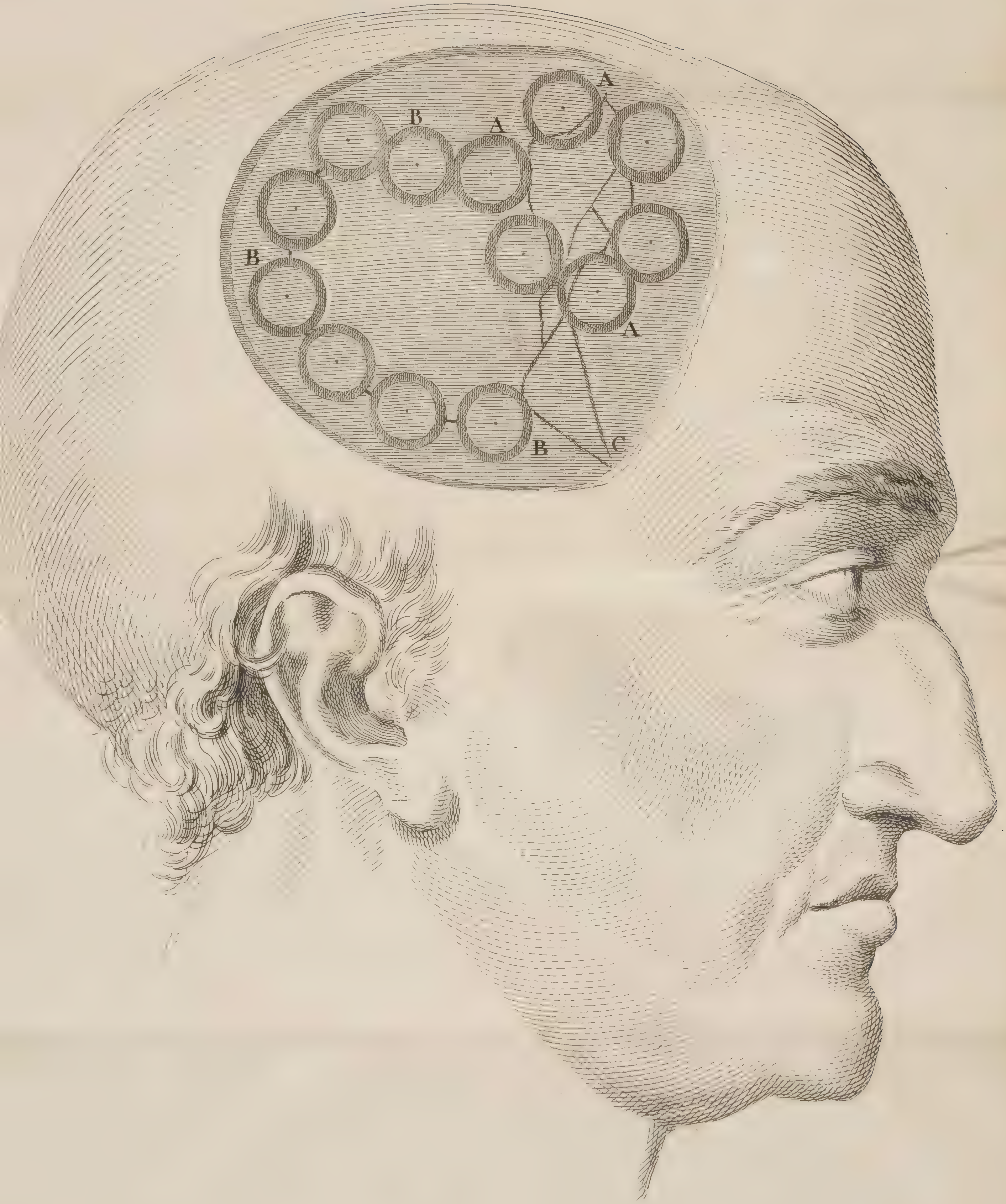
A. A. A. The extent of the firſt operation performed *March* the 19th.

B. B. B. The extent of the ſecond operation performed *April* the 1ſt.

C. The point of the triangular piece of bone, which was ſtruck into the *Dura Mater*, and diſcovered upon the ſecond operation.

That kind of Trepan called the Trephine is the moſt commodious, and it is now, I believe, in general uſe every where.

Pl. 1.



An uncommon caſe of a fracture of the ſcull.

June the 24th, 1749.

MR. J. E. of T. aged about thirty, came to my houſe when I happened to be from home, and aſked a gentleman who lived with me, to dreſs a ſmall wound he had received in the middle of his forehead, without ſaying how it happened; and a plaſter was accordingly applied, without examining the wound, it appearing ſo very ſlight.

I WAS called to him three days after, and found him in a *Stupor*, attended with other threatening Symptoms. Upon examining the wound, which was indeed very trifling in its external appearance, my probe paſſed, without any reſiſtance, into the brain more than two inches; at the extremity of which, I was ſenſible of touching ſome ſolid body, and took it to be a fragment of the internal table of the ſcull, after having been informed how the accident happened, which was by the breech-pin of a gun, when the barrel flew out of the ſtock upon diſcharging it.

I SCALPED him, ſtopped the *hæmorrhage*, with the needle and ligature, and trepanned him immediately, making two perforations adjoining, fearing it ſhou'd be impracticable to extract the fragments thro' one, which might be driven into the brain. The diameter of the fracture of the external table was of no larger extent than the tail of the breech-pin; but one of the fragments of the internal table was almoſt as broad as a ſhilling, much too big to have been extracted through a ſingle perforation.

THE *Stupor*, &c. went off ſoon after the operation, and he recovered his ſenſes perfectly: and though ſome portion of the brain was diſcharged at every dreſſing, the ſymptoms continued ſo favourable till the eighteenth day, that I began to be flattered with hopes of his recovery; but the *Stupor*, &c. then returned, and he died in convulſions the next day.

I COU'D not obtain leave to open the ſcull after the patient's death, to examine the brain, &c.

Another caſe of a fracture of the ſcull and wound of the brain, made by the breech-pin of a gun near three inches long, which was lodged in the left hemiſphere of the brain.

January the 18th, 1763.

A. B. a gentleman's ſervant, about nineteen years of age, diſcharging a gun, the breech-pin flew out of the barrel, entered the *Os Frontis*, including part of the frontal ſinus, and ſunk deep into the brain, quite out of ſight, near an inch below the internal ſurface of the ſcull. He killed the bird he ſhot at, and fell himſelf at the ſame inſtant; a perſon with him cried out, "He is dead"; to which he immediately anſwered, "No, I am not dead, come and help me up." His ſenſes were not in the leaſt impaired, and as ſoon as he was ſet upon his legs, he walked very well.

The next day I was deſired to meet the Surgeon, who was forthwith called to him after the accident, and we found ſome of the brain in the wound. His underſtanding was not yet affected, he anſwered all queſtions very pertinently, and complained only of a little pain in his head; but vomited now and then, and had a depreſſed pulſe. When we had deliberately conſidered all circumſtances, we came to a reſolution to ſcalp and trepan him directly. We made two perforations, through which we eaſily extracted ſome large fragments of the bone, and thought we felt another, larger than any one we had extracted, lodged much deeper in the brain, and this proved to be the breech-pin, that we were not the leaſt apprehenſive of finding there. The wound was then dreſſed, and the patient treated, according to the uſual rules directed in ſuch caſes.

Soon after the operation, the pain of his head went almoſt entirely off, the vomiting ceaſed, and his pulſe grew ſtronger. His ſenſes continued perfect till the eighth day, and the wound externally had no unfavourable aſpect, as the Surgeon informed me, though ſome of the brain was evacuated at every dreſſing. The firſt ſymptom ſhewing the nervous ſyſtem affected, was a dimneſs of ſight; ſoon after a total blindneſs ſucceeded; next day, on the oppoſite ſide to that which was wounded, he became paralytic, and the other was convulſed; the day after, he loſt his ſpeech, and died on the fourteenth day.

Lately Mr. *Leath*, a Surgeon of character at *Acle* in *Norfolk*, gave me the hiſtory of a caſe which ended happily, wherein the breech-pin of the gun entered the *Os Frontis*, and wounded the brain, but was not loſt in it as in the preceding caſe.

A fracture upon the *Os Frontis*, attended with an eryſipelatous tumor of an enormous ſize.

Auguſt the 3d, 1754.

THE wife of T. H. of H. aged about fifty, of a ſtrong conſtitution and bilious habit, received this accident by a ſtone thrown with great force: the wound tho' inconſiderable was immediately ſtitched, and the caſe, in all reſpects, treated contrary to the rules of Surgery.

I WAS called to her on the eighth day after the accident, and found an eryſipelatous tumor, partly emphyſematous, had ſeized her head, face, and neck, to the greateſt degree I had ever ſeen; thoſe parts were as much ſwelled as in the moſt confluent kind of ſmall-pox, the fever ran very high, ſhe was delirious, breathed very ſhort with great labour and difficulty, and indeed I thought ſhe cou'd not have lived till the next day. I diſcovered a fracture with my probe, which eaſily paſſed a good way round about upon the ſcull, the ſcalp being quite ſeparated from it. I made a longitudinal inciſion, but did not venture to remove the ſcalp, under theſe circumſtances, to inform myſelf of the nature and extent of the fracture. As yet, no evacuations had been made, and every rational means of relief had been neglected.

REPEATED bleeding, as her ſtrength would bear, lenient purgatives, nitrous medicines with camphire, the plentiful uſe of diluents, &c. with ſcarifications and proper topics, gave her relief in a few days, beyond expectation: I then removed a ſufficient portion of the ſcalp to bring the fracture in view, applied the trephine, and found much extravaſated blood upon the *Dura Mater*, which was in an inflamed ſtate. Bleeding, lenient purgatives, &c. were occaſionally continued after the operation. It was a long time before ſhe appeared out of danger, and was recovered with the utmoſt difficulty.

In a ſingle perforation of the ſcull after trepanning, I have often found the plate of lead, deſcribed and ſtrongly recommended by *Belloſte*, in his Hoſpital Surgeon, of ſignal ſervice in keeping the *Dura Mater* ſufficiently depreſſed ; by which the growth of fungous fleſh from thence, through the perforation, will be eaſily prevented, and the diſcharge of any kind of fluid facilitated, that may happen to be lodged between the ſcull and that membrane: I never ſaw any inconveniencies ariſe from the uſe of it; but dreadful conſequences may juſtly be apprehended from cutting off fungus, or deſtroying it with eſcharotics, in theſe caſes. By a piece of card laid over the ears of the plate, raiſed a little above the ſuperficies of the ſcull, the preſſure may be regulated to a due degree, with a compreſs and the common bandage, or with ſtrips of common plaſter applied crucially over the wound, which are preferable, without any other bandage than to contain the neceſſary applications. The firſt time I performed this operation, I found the ſame inconvenience followed it, which I ſuppoſe put *Belloſte* upon inventing this plate, and uſed it ſeveral times, without knowing it had been uſed by any Surgeon before.

A caſe in which the trepan was ſucceſsfully applied to the occipital bone.

THE Reverend Mr. *Baker*, of *Hedenham*, a very worthy divine, in the fifty-ninth year of his age, of a robuſt conſtitution and ſanguine complexion, by a fall from his horſe running away with him, *July* the 11th, 1757, received one large and extenſive fiſſure, in a right line downwards, from near the ſuperior angle of the occipital bone, and another as ſmall as a hair, diverging at an acute angle, about an inch from the top of the large one, on the left ſide of it, extending almoſt to the lambdoidal ſuture.

He was taken up ſpeechleſs and ſenſeleſs, the *Stupor* went off, in a great meaſure, upon ſcalping and plentiful bleeding ; a fever ſoon followed, attended with delirious ſymptoms at times, with an appearance of the intellectual faculties being much impaired, though not entirely aboliſhed ; but he cou'd recollect nothing of what had happened relative to the accident.

MANY circumſtances concurred to delay the uſe of the trepan till the eleventh day after the accident, when it being unanimouſly agreed upon in conſultation, by Doctor *Bennet*, of *Norwich*, Meſſrs. *Cooper*, *Manning*, and *Lewis*, of *Bungay* in *Suffolk*, Surgeons, with myſelf, and conſented to by the perſons nearly concerned, a ſingle perforation of the bone was made, including a ſmall part of the capillary fiſſure as well as the other, without any ill accident attending the operation: we bore in mind this excellent maxim in Surgery, *Feſtina lente*, examining the *Sulcus* frequently with a probe, or quill cut like a pick-tooth, to obſerve where the ſaw had cut through; and when the piece was moveable, holding by one third or fourth of its circumference, we thought it moſt adviſeable to raiſe it up with the *Elevator*; the *Dura Mater* then appeared highly inflamed, looking of a duſky red, much like a lump of coagulated blood. We afterwards, with ſmall gouges, carving and engraving tools, enlarged the lower part of the fiſſure, where we perceived an iſſuing of a fetid gleet, like what was diſcharged through the perforation, from between the *Dura Mater* and the *Cranium*; and apprehending they had a communication, we ſhou'd have looked upon it as juſtifiable practice, to have made one or two perforations more with the trepan, towards that point, had not the ſymptoms abated.

He had a variety of ſymptoms both before and after the operation, ſhewing the nervous ſyſtem greatly diſordered; but we cou'd not preciſely determine what part of the *Encephalon* was moſt affected: before the operation he conſtantly complained of much pain upon the ſides and fore part of his head, which was accompanied with the moſt intenſe degree of heat perceptible by our touch, and which was not ſenſibly abated by copious bleeding, the obſervance of an exact regimen, &c. About ſix hours after the operation, he gave ſignal evidence of the return of his ſenſes, in recollecting and clearly relating the circumſtances of the accident; and the pain and heat of his head ſoon abated: ſtill many threatening ſymptoms continued, and new ones aroſe; among the reſt, a *Spaſmus cynicus* on the left ſide, with a remarkable ſinking and dulneſs, or want of luſtre of the right eye at the ſame time, both of which proved of ſhort duration.

After plentiful bleeding, the frequent repetition of lenient purgatives, a regular uſe of cooling remedies, and keeping him ſtrictly to a ſoft liquid diet, it was thought proper, on account of febrile ſymptoms which increaſed periodically, and the appearance of a blackiſh ſlough upon the *Dura Mater*, to give the Bark, joining Rhubarb with it to prevent coſtiveneſs.

About a fortnight after the operation, we began to conceive great hopes of his recovery; in *October* the wound was contracted into the compaſs of a fontanel, and kept open at the bottom as ſuch; his intellects were perfect, he was able to take the air in his chariot, and his health daily improved. He lived ſeveral years after, and enjoyed as good health, as he had done for many before.

In this caſe, we wanted circumſtantial and well warranted precedents, to enforce the application of the trepan, and ſatisfy all parties concerned, of the propriety and neceſſity of it, upon the occipital bone. It is to be wiſhed that Writers of approved character, who have treated this ſubject, had farther conſidered a point of ſo much importance to ſurgery; for the *Dura Mater* may be ſo injured, that though the *Cerebellum* has received no immediate hurt, whence, it is ſuppoſed, death wou'd inſtantly enſue, yet, without trepanning, the patient muſt inevitably periſh: and this appearing to be the ſtate of the caſe before us, had the hazard of the operation been much greater, we ſhou'd have thought ourſelves juſtified in the practice.

THE objections which have been made againſt it, are, a great difficulty of perforating the bone, on account of the unequal thickneſs of it, the danger of wounding the *Cerebellum*, and of opening a *Sinus*. Shou'd the latter happen we have inſtances of its not proving mortal; and upon a ſtrict examination of the bone, we believe, it will appear that few parts of it have ſuch an inequality, in the circular compaſs of the ſaw, as to be more than a little thicker in one part than the other; from which conſideration, and the *Cerebellum* and *Sinuſes* being well defended by ſo thick a membrane as the *Dura Mater*, we are encouraged to hope, that a cautious Operator may ſucceed without injuring either; but he ſhou'd be well acquainted with the ſtructure of the bone and the reſpective ſituation of the parts, proceeding with the utmoſt circumſpection and prudence, where the practice may not yet be thought ſufficiently authorized.

I have ſince trepanned the occipital bone with ſafety, over the right lateral *ſinus*, and the piece taken out was a great deal thicker in one part than the other.

See Med. Muſeum, Numb. 55, in which are related two caſes, of the operation having been performed with ſucceſs, upon the occipital bone; and one in Numb. 60 of that periodical work.

Vid. *Jacobi Bontii* Obſerv. vi.
De inſigni Cranii Fractura.

This ſingular and very dreadful accident happened to a Sailor, through careleſsneſs, as he was employed in cleaning and careening the Ship; having his head inclined to his work, it was cruſhed between the ſhip and the boat he was in, by the impulſe of a wave; and though great part of the occipital bone was extracted in fragments, at different times, almoſt as far as the *Foramen magnum*, yet he was perfectly cured in about ſix months, by *Bontius* and another eminent practitioner, beyond their expectation.

A fiſſure upon the *Os temporale*, *&c.* attended with uncommon circumſtances, in which trepanning happily ſucceeded.

June the 5th, 1763.

MR. D. J. of F. a Gentleman of great eminence in the law, about 55 years of age, and of a vigorous conſtitution and active diſpoſition, riding too briſkly, as he was wont to do, his horſe fell, and he was taken up by his ſervant in a ſtate of abſolute inſenſibility, and immediately conveyed to the neareſt houſe of accommodation, where a Phyſician and two Surgeons attended him as ſoon as poſſible.

THE next day I was called to a conſultation, in which it was agreed to ſcalp him forthwith, removing a portion of the temporal muſcle, that was moſt violently contuſed; under which we found the *pericranium* quite ſeparated from the bone, and a fiſſure extending obliquely and laterally to the parietal bone. In ſcalping we deſignedly included a branch of the temporal artery, ſuffering a conſiderable quantity of blood to flow from thence. The day following he was trepanned; the *Dura Mater* was found detached from the ſcull, having evidently the appearance of an incipient inflammation, but no extravaſation was diſcovered.

VERY threatening ſymptoms ſtill continuing, the patient conſtantly lying either in a lethargic or delirious ſtate, attended with ſpaſmodic affections, and a very irregular pulſe; and ſeeing the operation, frequent bleeding, other evacuations, &c. brought no ſenſible relief, another conſultation was held a few days after, conſiſting of two Phyſicians and four Surgeons; the reſult of which was, that ſcalping ſhou'd be farther and amply extended directly. The next day the Phyſicians and Surgeons all met again, and unanimouſly agreed that a ſecond perforation ſhou'd be made, contiguous to the firſt, the fiſſure purſued, and more perforations made, if occaſion required; but upon the moſt accurate inſpection of the parts after doing this, we determined to deſiſt, though in the extent of the ſcalping, we had uſed the precaution of ſufficiently providing for more perforations, ſhou'd ſuch meaſures have been found neceſſary.

After the ſecond operation, veneſection was ſtill continued as freely as the patient's ſtrength wou'd allow, with a ſtrict obſervance of all other adviſable rules, as before directed. The very alarming ſymptoms gradually abated, and in about a month he appeared in a condition to be removed to *Norwich* with ſafety, for the greater convenience of the conſtant attendance of the Phyſicians; and then, at his own deſire and his relations, the care of him, in the part of ſurgery, devolved upon me ſingly. As this caſe was circumſtanced, it appeared to me a point of great conſequence, that one of the Phyſicians, if not both, ſhou'd always attend at the times of dreſſing, for the patient's benefit and my own ſatisfaction.

A fever ſtill ſubſiſted after his removal, more or leſs; ſometimes accompanied with delirious ſymptoms, which nothing but bleeding wou'd effectually remove. He ſeveral times manifeſtly hurt himſelf, with attention to buſineſs, increaſing his fever, and bringing on thoſe alarming ſymptoms by that means, notwithſtanding our repeated and moſt earneſt caution againſt it. He frequently complained of an uncommon pain in his head, to a degree in proportion to the intenſeneſs of the febrile ſymptoms; which proceeded from the temple, going off in curves above and below, tending to, and terminating at the *Occiput*, according to his own manner of deſcribing it, when he was perfect in his underſtanding.

More than two hundred ounces of blood were taken away during the cure, and above a hundred of them in the firſt week after the accident; but notwithſtanding this copious bleeding, and a very liberal uſe of diluents, attenuants and laxatives, the blood acquired the thickeſt buff-coloured ſize we ever ſaw; which was generally obſerved to be, after the firſt few days, from $\frac{1}{2}$ to $\frac{3}{4}$ of an inch thick; once I meaſured it exactly, and found it wanted but little of an inch; and it had ſuch a ſtrong coheſion, that by a part of it very little bigger than a ſtraw, the whole *craſſamentum* cou'd be lifted up out of the baſon.

There was ſuch an exquiſite ſenſibility in the wound, that he cou'd not bear the neceſſary degree of preſſure by bandage, to prevent the growth of luxuriant fleſh; indeed he complained much of the ſlighteſt bandage imaginable, ſerving only to retain the dreſſings, without any evident reaſon from the aſpect of the wound; and this proved a great inconvenience in the cure of it, laying me under a neceſſity of taking ſuch ſteps as I wou'd willingly have avoided.

Upon the riſing of the exfoliations, the pulſation of the new-made arteries thruſting them off, was very viſible to the naked eye. This uncommon phænomenon attracted our particular notice and attention; and we alſo viewed theſe veſſels with glaſſes for our farther ſatisfaction in ſuch a curious matter, which afforded us great pleaſure, having never before had an opportunity of ſo clearly viewing this wonderful operation of nature. On a part of the parietal bone upwards, at the diſtance of near an inch from the ſecond perforation, where we cou'd not diſcern the leaſt mark of Injury, even by the ſtricteſt examination with the beſt glaſſes immediately after ſcalping, though we ſcraped the bone well and ſpunged it quite dry; yet a piece of the whole ſubſtance of the *Cranium*, about half an inch in diameter, was there caſt off; through the middle of which we obſerved a hole running horizontally, which wou'd admit a crow's quill, giving paſſage to a blood-veſſel.

ABOUT the beginning of October he was able to take the air in a chariot, and went home on the 25th of that month, free from any material complaint except weakneſs, the natural conſequence of the length of his illneſs, confinement, &c. the exfoliation was then completed, and the cicatrization of the wound nearly ſo, which was likewiſe perfected ſoon after, without any breaking of the cicatrice afterwards: and in a reaſonable time he recovered his health, ſtrength, and mental faculties, all which he now enjoys as well as before the accident, without the leaſt uneaſineſs in his head, and ſays he thinks his health is improved in ſome reſpects: But the imminent danger he has eſcaped, I hear, has not proved admonition ſufficient to warn him againſt riding too deſperately.

It is highly probable that the reſolute perſeverance in bleeding, greatly contributed to the preſervation of this Gentleman's life.——Serjeant Wiſeman has recorded a very memorable and pertinent caſe, in his excellent Works, Book 5, Chap. 9, Obſerv. 10.

A fracture of the ſcull, with fragments depreſſed in an extraordinary manner, in which trepanning ſhou'd have been immediately performed, to have given the patient a chance for his life.

March the 19th, 1758.

T. B. of P. a healthy lad, as he was driving a cart early in the morning, with unmanageable horſes, had his head cruſhed between a wall and the foreſtool of the cart. Towards Evening on the 22d I was called to meet the Surgeons who had been concerned from the beginning; but they not being acquainted with accidents of this nature, the neceſſary ſteps were omitted. The patient ſoon became comatoſe, vomited, had frequent ſpaſms affecting different parts; and now the wound had a very ill aſpect, diſcharging a fetid gleet.

After an ample removal of the ſcalp, we diſcovered an extenſive fracture, with great comminution of the right parietal bone; and there appeared no poſſibility of extracting or raiſing the depreſſed fragments of the ſcull, which were firmly fixed, and ſunk conſiderably below the bone, forming in the centre a concave nearly equal to the natural convexity of it. With a picktooth, we cou'd find that the internal ſurfaces of the broken pieces were much larger than the external, and which appeared ſo, in a very extraordinary manner, upon viewing them after trepanning: and as they contained a great extent of the internal table underneath where the external remained entire, an attempt to have removed them, without making ſeveral perforations, as deſcribed in Pl. 2. might not only have proved difficult, or even impracticable, but probably have farther injured the ſubjacent parts, which had evidently ſuffered very much.

All circumſtances having been deliberately conſidered by us, though there appeared but little reaſon to hope for ſaving the patient's life by trepanning, yet we were unanimouſly induced to propoſe it, ſeeing that he muſt inevitably periſh without, and followed *Celſus's* rule; "*Anceps remedium melius*

melius quam nullum." After a true repreſentation of the matter to his father, mother, and others nearly concerned, and having their approbation and conſent to proceed as we thought moſt adviſeable, at the deſire of the other Surgeons, who had never done or ſeen this operation, I performed it directly, without any more loſs of time, having ſtopped the *hæmorrhage* by ligature upon the ſcalping, with that view. I made four perforations, as deſcribed in the place before mentioned, which gave room to extract the fragments of the bone with great facility; under which we found the *Dura Mater* wounded, lacerated, and mortified, with a great quantity of extravaſated fluids exceſſively offenſive, and a ſplinter of wood, about an inch long, and half an inch broad, that was forced through the *coronal ſuture.*

Soon after removing the fragments of the ſcull, &c. dreſſing the wound in the uſual gentle manner, and applying eaſy compreſs and bandage, he ſpoke ſenſibly, anſwered many queſtions rationally and pertinently, which he was not able to do before, and nouriſhment now ſtayed in his ſtomach: but this ſcene was ſoon changed; about midnight he began to talk incoherently, ſoon after totally loſt his ſenſes, became lethargic again, and paralytic on the oppoſite ſide, dying next day in ſtrong convulſions.

IMMEDIATELY after his death, we examined the parts, and found the *Pia Mater* and brain itſelf in a mortified ſtate, as well as the *Dura Mater*.

Explanation of PLATE II.

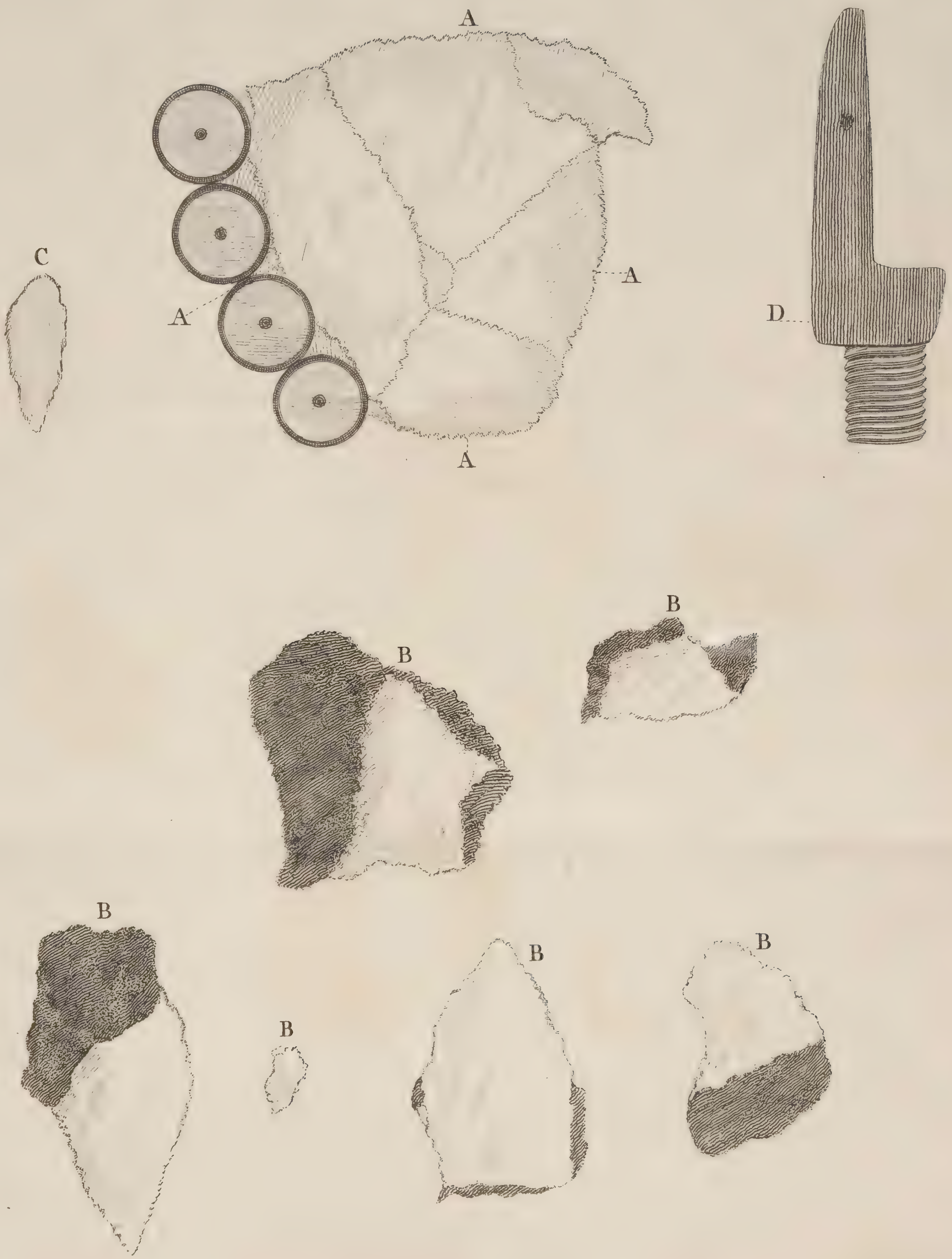
A. A. A. A. repreſent the fracture, and the neceſſary perforations made in the ſcull to facilitate the extraction of the fragments.

B. B. B. B. B. ſhew the fragments ſeparately, the darkened parts of them denoting the breaking off at the Diploë, and the greater extent of the internal than external ſurfaces of them.

C. the piece of wood that was forced through the ſcull at the *Coronal Suture.*

D. the exact figure and dimenſions of the breech-pin of the gun mentioned in caſe the third.

Pl. 2.


A
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The unfortunate preceding caſe and the following, afford cogent arguments for the ſtricteſt examination at firſt, and for performing the operation without delay, as it is neither difficult nor dangerous in its own nature.

WHILST I was with a Gentleman of great ſkill and experience in his profeſſion, in the month of *April*, 1758, upon another occaſion, an accident on the ſame part of the head, and ſimilar to the preceding in many circumſtances, happened to a child about three years old, upon whom he performed the operation about two hours after, making four perforations in the direction deſcribed in the laſt mentioned caſe, with a view of obtaining a proper dependence for diſcharge of the matter, which ſhou'd always be particularly attended to in this operation. After removing the looſe fragments of the ſcull, leaving the *Dura Mater*, in all appearance, free from oppreſſion, we applied to it a piece of fine linen cloth dipped into a ſoft vulnerary balſam, conveying over it a perforated leaden plate, exactly under the edge of the *Cranium*; which, in ſeveral inſtances, I have found very beneficial both in ſupplying the preſſure of the loſt bone, and allowing a ready exit to extravaſated blood, collected between it and the membrane.

The child had a good night after the operation, and was briſk and lively the next morning, nor had he any concomitants of an oppreſſed brain for the ſpace of three weeks, when he ſuddenly fell into convulſions, and died in a ſhort time, to the Surgeon's great ſurpriſe, who had not obſerved the leaſt ill appearance in the wound. Soon after the patient's death, he accurately inſpected the head, and at a conſiderable diſtance from the perforations, another part of the ſcull was found a little depreſſed, with an extravaſation of blood under it, whence proceeded the fatal ſymptoms.

A caſe in which, after trepanning, the *Dura Mater* was ſucceſsfully opened, on account of a ſerous extravaſation.

LAST year I was deſired by Mr. *Swift*, a Surgeon of eminence in the City of *Norwich*, where I then reſided, to aſſiſt him in this operation, three days after the accident. Upon making a ſufficient number of perforations with the trephine, and removing a large depreſſed piece of the right parietal bone, we found a conſiderable quantity of a ſerous or lymphatic fluid, collected under the *Dura Mater*, which, by preſſing with our fingers, bubbled up through many ſmall holes, made by its violent detachment from the ſcull. We agreed upon opening this membrane more than an inch, with a pair of fine ſciſſars, for the free evacuation of this extravaſated fluid, and the patient recovered, by the common treatment, without any threatening ſymptoms ſupervening; and thoſe which attended before the operation, vaniſhed ſoon after. I have ſeen ſome other inſtances of the good effect of opening this membrane in extravaſations.

WHAT has been ſaid upon this ſubject of fractures of the ſcull, &c. in my treatiſe on wounds, Part II. relating to the various accidents happening to the head, may be referred to occaſionally.

Of an enormous *Hydrocephalus*, attended with very ſingular circumſtances.

DURING my abode in *London* the winter of the year 1758, in my return from *Bath*, I frequently viſited the Hoſpitals, and ſhall always retain a remembrance, and a grateful ſenſe, of the civilities I received from my brethren preſiding in thoſe ſchools of Surgery.

AFTER having been one day at *Guy's* Hoſpital, by a kind invitation from Mr. *Warner*, upon an extraordinary occaſion, he carried me to Bridewell near *Fleetſtreet*, to give me an opportunity of ſeeing the above-mentioned wonderful caſe. The child was nine months old, and ſoon after its birth ſome appearance of the diſeaſe was diſcovered, but in all other reſpects he ſeemed healthy. He took his food very well, throve with it, and ſhewed as much knowledge and vivacity as children of that age uſually do, till a few days before its death, as the woman who had the care of him, and whom I interrogated in a particular manner, aſſured me, and that he then became ſuddenly very dull and ſtupid, taking no notice of any thing, and died in convulſions.

The head meaſured in circumference 29 inches, and at a depending puncture made by Mr. *Warner*, at the back part with a large trocar, he drew off ſix pints and a half, beer-meaſure, of a limpid fluid in a full ſtream, which had a remarkable tranſparency, and brightneſs like a ſtream of quickſilver. This fluid did not appear of a lymphatic nature, by inſpiſſating with heat; I evaporated a ſpoonful of it over a candle, and nothing remained but a very ſmall portion of a terrene, taſteleſs matter; which experiment ſufficiently proved it to be an aqueous fluid.

This diſeaſe began in the ventricles of the brain, and the fluid gradually increaſing, diſtended not only the membranes, but the brain itſelf, into a kind of bag, the whole thickneſs of which, including the ſcalp, did not exceed 4 or 5 doubles of brown paper, even where ſome bone was found, which indeed had ſcarce the ſolidity of cartilage.

A SHORT time before the child's death, a raſh and daring pretender to Surgery, wou'd have adventured to open the head; but had he been permitted to do ſo, it is not the leaſt to be doubted, for very obvious reaſons, that death wou'd have immediately enſued ſuch a bold and injudicious an attempt. (*a*)

THERE is a ſpurious kind of *Hydrocephalus*, much of the nature of the *Spina bifida*, appearing on the lower part of the *occiput*, like a bladder of water, underneath which there is a deficience of bone. Opening this tumor wou'd, in all probability, be attended with the ſame fatal conſequences, as opening that in the *Spina bifida*. (*b*)

A

(*a*) Doctor *Hunter* has in his poſſeſſion ſeveral heads that were ſo diſeaſed; but I do not know we have a hiſtory of one equal in ſize to this in a child ſo young.——*Ruyſch* in his *Theſaurus Anatomicus* has a ſurpriſing figure of one, in a *Fœtus* of 6 or 7 months.

(*b*) Many Obſervators take notice of the *Spina bifida*, but more particularly *Ruyſch* and *Tulpius*.——Doctor *Mackenzie*, a celebrated teacher of Midwifery in *London*, ſhewed me ſome years ago, among other curious things, a recent *Spina bifida* of a child of four months old, who died in convulſions; and ſome time before its death the lower extremities were become paralytic. When I viſited this ingenious Gentleman, he had juſt finiſhed an accurate drawing of this caſe.

A caſe in which the muſcles of the eye-lids, and of the globe of the eye, were affected in a ſingular manner; the globe of the eye was immoveably fixed, the upper eye-lid cou'd not be raiſed, by the muſcular power, in the leaſt degree, and when liſted up, the pupil appeared much dilated, and the patient ſaw objects double.

IN *May* 1760, I was deſired, by a very ingenious Apothecary, to viſit a Gentleman in the City of *Norwich*, near 50 years of age, who had long been ſubject to a leprous eruption upon his arms, and had been about two months under his care, for this diſorder of his eye. He had given him ſome mercurial purges and antiparalytic remedies, under which courſe the complaint rather increaſed; however I ſtill recommended *Calomel*, rubbed with *Sulphur*, to be taken in ſmall doſes, as an alterative, every night, and a gentle purge every fifth or ſixth morning; and at the ſame time he took an electuary with *Valerian* and *Cinnabar* of *Antimony* twice or thrice a day, waſhing it down with *Infus. paralytic.* of *Quincy*, and had his eye well fomented as often, with the *Fot. commun.* made with the addition of *lavender* and *roſemary*, adding to the liquor a portion of *Spirit. Mindereri.* In about three weeks there appeared a viſible amendment, by his beginning to raiſe the eye-lid, and to move the globe a little: and by a regular perſeverance in this method, he was perfectly cured in leſs than two months, of this very alarming complaint; during which time the cutaneous eruption alſo vaniſhed. He then took an electuary compoſed of the *Bark*, *Valerian*, and *Cinnabar*, and drank liberally of *Decoct. Lignorum*, waſhing his eye well morning and evening, with cold water and a ſpunge, for ſome weeks; after which he uſed a cold bath with advantage, and has had no return of either diſorder.

In the ſame year, a Clergyman about the ſame age, but of a ſtronger conſtitution, fell under my care in a ſimilar caſe in reſpect to the eye; and ſaid he uſed likewiſe to be afflicted with ſcorbutic and nervous complaints. By the like treatment, and in about the ſame ſpace of time, he was alſo perfectly cured.——Having never met with the hiſtory of ſuch a caſe in any Obſervator, nor ſeen the like before nor ſince, I apprehend they may be very rare.

A caſe ſhewing the ſingular good effect of *Merc. ſublimat. corroſiv.* in an inveterate *Ophthalmy.*

E. D. of N. aged 53, a man of great temperance and ſobriety, born of healthy parents, and who, in the former part of his life, had enjoyed a good ſtate of health, was ſeized in the beginning of *January* 1756, with a fever, attended with a violent pain of his head and inflammation of his eyes, to a high degree, the *Tunica conjunctiva* looking like fleſh; and he was totally deprived of ſight.

THE common treatment of inflammatory diſeaſes was regularly obſerved, which removed his fever, without affording any conſiderable benefit, in reſpect to the *Ophthalmy.* He told me he had been let blood fifteen times, beſides having had the temporal artery once opened, and leeches often applied to his temples; that he had taken a great many medicines, and uſed various applications, none of which means, he ſaid, gave him more than a little temporary relief.

When the diſeaſe, in all appearance, was become local, no more than a ſlight pain of the head attending the inflammation of his eyes, he was put into a mercurial courſe, by the advice and direction of an eminent Phyſician, and took about thirty ſmall doſes of *Merc. dulc.* rubbed with *Sulphur*, interpoſing a lenient purge at due intervals, in order to prevent a *Ptyaliſm*, obſerving a very exact regimen all the while; but this method, though it was evidently of ſome ſervice, yet did not cure him.

Some months after this mercurial courſe, he was admitted into Mr. *Fellowes's* Infirmary, his eyes being in as bad a condition as ever, unable to diſtinguiſh any object, or to bear the light without great pain. Though powerful and regular methods had not anſwered the end, yet rather than abandon the poor unhappy man to deſpair, I propoſed to the conſideration of the Phyſician, whom I have mentioned on this occaſion, the trial of the mercurial ſolution, as directed in the *London* Medical Obſervations and Inquiries, which he very readily approved.

After letting the patient blood, and giving him a gentle purge, I began with *Merc. ſublimat. corroſiv.* gr. ¼ diſſolved in ʒſs of brandy, and ordered this doſe of the ſolution to be taken morning and evening, mixed with a quarter of a pint of barley-water, directing him to live upon a cooling diet, and to drink barley-water with milk, and ſuch kind of liquors very plentifully. The firſt doſe made him a little ſick and giddy, in about ten minutes he grew hot, and ſoon after fell into a moderate ſweat, which continued ſome hours; the next doſe had the ſame effects. When he had taken a few doſes of this medicine, it neither made him ſick nor giddy; but then, beſides heating and ſweating him, it increaſed the ſecretion of urine, and generally gave him a ſtool or two extraordinary in 24 hours.

In five or ſix days he found his eyes eaſier, without being ſo much cloſed as uſual with gummous matter in the night; and I obſerved they were very evidently leſs inflamed. About this time he had an univerſal itching, attended with little eruptions upon the ſkin, but theſe ſymptoms were of ſhort duration.

When he had taken the medicine ten days, as it neither made his mouth ſore, nor produced any ſymptoms to forbid the continuance of it, I increaſed the doſe to half as much more; and, a few days after, doubled the firſt quantity, which cauſed ſome pain with throbbing of his head; but it ſoon went off, and the following doſes did not affect him more ſenſibly than the leſſer had done.

In leſs than a month the patient appeared perfectly cured; he declared that he had no manner of uneaſineſs of his eyes or head, and found himſelf well as to his health, in all reſpects. The Phyſician, whom I adviſed with concerning the uſe of this medicine, and a very judicious Surgeon, examined his eyes with me, and cou'd not diſcover the leaſt appearance of inflammation; however, I kept him a little longer in this courſe.

During the exquiſite pain and ſenſibility, I ordered the eyes to be very frequently well waſhed with *Emuls. commun.* and *Julip. e Camphora p. æ.* moderately warm, with a piece of the fineſt ſpunge; and with warm milk and water in a morning, to clear them from the gumminefs contracted in the night, uſing the following *Collyrium* afterwards, when the eyes were in a condition to bear it.

R Julep. e Camphora ʒviij
Aq. Roſarum ʒiv
Spirit. Mindereri ʒij m.
& per chartam filt.

To this I alſo added, occaſionally, a few grains of *Sacchar. Saturni. vel Vitriol. alb.*

WHAT ſeems to us moſt obſervable in this caſe, is the effect of the *Merc. ſublimat. corroſ.* after regularly perſevering in the uſe of the *Merc. dulc.* to little or no purpoſe. We were inclined to try the power of this medicine, in ſome hopes of finding its efficacy not peculiarly confined to the correction of the venereal *virus*; on which account it has been found ſingularly efficacious, as has been ſufficiently experienced, when continued a due time; and its ſudden good effect, in this caſe, was a circumſtance that greatly as well as agreeably ſurpriſed us, giving us better reaſon to hope it may prove of more general uſe, in ſome other obſtinate obſtructions in the *Vaſa minima*, when other mercurials fail (*a*)

A SHADE made with ſtiff paper, covered with green ſilk, ſhou'd be conſtantly worn, to defend inflamed eyes againſt the rays of light making too ſtrong an impreſſion upon them; and no bandage to keep the lids cloſe together ſhou'd be uſed; as confining the tears, &c. will add to the diſorder, by making any fluids therein contained, more acrid and irritating: for the ſame reaſon frequent waſhing with proper *Collyria*, that do not excite pain, prove very beneficial; and when the eyes are exquiſitely ſenſible of pain in inflammations, the patient's room ſhou'd be darkened.

(*a*) Mr. *Sainthill*, a gentleman of a very amiable and communicative diſpoſition, to whom I am much obliged for his friendſhip in many inſtances, told me ſome years ago, that when he was a young man, Mr. *Herenden*, then an old and eminent practitioner in *London*, aſſured him he had, throughout the courſe of his practice, frequently uſed a ſolution of *Merc. ſublim. corroſiv.* with very good effect in venereal complaints; and that he himſelf had alſo done the ſame, it is therefore not to be conſidered as a new medicine.

Another caſe, in which *Merc. ſublim. corroſiv.* remarkably ſucceeded, after the uſe of *Merc. dulc.* in an opacity of the eye.

A YOUNG Gentleman who was born blind of one eye, had the other begin to grow defective, without any viſible cauſe, at 17 years of age; and notwithſtanding the care and attention of an able Surgeon, who, with the reſt of his treatment, purged him with *Merc. dulcis,* he ſoon loſt his ſight to ſuch a degree, as not to be able to diſtinguiſh objects. At this time I was conſulted, and we obſerved the eye had loſt its luſtre, attended with a great dilatation of the pupil; but we cou'd not preciſely determine what parts of the eye were affected, nor give a ſpecific name to the diſeaſe, from its appearances, yet were apt to think the very fine membranes, enveloping the cryſtalline and vitreous humors, might be rendered opaque.

WE agreed to put a ſeton into his neck, and to give the mercurial ſolution, as directed in the preceding caſe. In a few weeks he was evidently better, in all reſpects; and in about two months, his ſight was perfectly reſtored, and his eye recovered its priſtine luſtre and appearance. It is now more than two years ſince, and he has had no relapſe.

See Baron Van *Swieten's* letter to Dr. *Silveſter*, in the 2d vol. of the *London* Medical Obſervations and Inquiries, written in the year 1758, concerning the uſe of *Corroſive Sublimate*, in the cure of opacity of the eyes.

Of an uncommon periodical blindneſs, and a Nyctalopia.

A WOMAN aged 21, healthy in all other reſpects, and very regular in her menſtrual returns, had a ſlight inflammation upon the edges of her right eye-lids, which was ſoon removed by bleeding, gentle purging, and common applications: after this, the ſight of that eye, without any diſorder upon the other, went away for the ſpace of an hour or two, or more, every day, at no determinate time; but in about a year ſhe became totally blind of it, and a great enlargement of the diameter of the pupil remained. No uneaſineſs attended the eye, except that about five minutes before the going away and return of ſight, ſhe complained of a very acute pain in it; which circumſtance was invariable: the return of ſight was not gradual, but with a ſudden flaſh of light, upon which ſhe was able to read inſtantly, in a book of a common print, with the other eye ſhut.

AFTER the total loſs of this eye, the other remained perfectly well about three months, when it began to be affected in the ſame manner as the other had been. Two months after, which was on *May* the 29th, 1764, when I firſt ſaw her, ſhe gave me the preceding relation: ſhe is a woman of veracity, and a very intelligent perſon confirmed what ſhe ſaid. At this time ſhe was generally blind ſix or eight hours in the twenty-four; in a few weeks the blindneſs increaſed to twelve, her ſight departing about 8 or 9 at night, and returning near the ſame hour in the morning; this was the courſe of the diſorder, with little variation.

VENESECTION, opening the temporal artery, veſicatories applied behind her ears, a ſeton in her neck, purging with *Merc. dulc.* with the obſervance of an exact regimen had no effect.——When the returns of the diſorder became regularly periodical, the Bark was alſo tried, and afterwards cold immerſion, but to no better purpoſe.

THE mercurial ſolution ſeemed to have ſome good effect in this ſingular caſe; during the uſe of it, the ſight returned, tho' for a few days only, to the eye which had been long blind, and the periodical returns of the diſeaſe kept entirely off about ſix weeks, which we aſcribed to this medicine, no other means being made uſe of at the ſame time. It was left off on account of its diſagreeing with her ſtomach, and the diſorder ſoon returned; had it been longer and regularly perſevered in, perhaps it might have effected a perfect cure: however, in length of time, without taking any other medicines, the diſeaſe gradually went off; and ſhe now ſees very well with one eye, without having once loſt the ſight of it for ſome months.

When ſhe loſt her ſight, I cou'd diſcover no defect in her eye, only a dilatation of the pupil, as we obſerve in a *Gutta ſerena.*

Of a diſorder in the *lachrymal Sac* of many years ſtanding, in a ſcrophulous habit.

SOME years ago, a young lady was ſent to me out of the Country, when I dwelt at *Norwich*, with a tumor at the corner of her eye upon the *lachrymal Sac*, in an inflamed ſtate ready to burſt, and by preſſure, purulent matter appeared through the *Puncta lachrymalia*; and under theſe circumſtances it was agreed in conſultation to open it directly. The operation was performed in the common manner, beginning the inciſion juſt beneath what is called the tendon of the orbicular muſcle; and after amply dividing the *Sac*, I fortunately diſcovered the *naſal duct*, with a very fine probe, without any difficulty, and immediately introduced, as eaſily, a piece of bougie I had provided for that purpoſe. By this means the natural opening for the paſſage of the tears afterwards, was effectually preſerved during the cure of the wound, which was completed in about a month, with no more blemiſh than the appearance of a ſmall ſmooth cicatrice :

the tears alſo readily found their courſe thro' the *Puncta lachrymalia* and *ducts*, ſo that not the leaſt portion of them ran down the cheek ; and ſhe remains perfectly well, due regard having been paid to the original cauſe.

HAD not the bougie anſwered the end to my wiſh, in keeping open the *naſal duct*, I ſhou'd have drawn a ſeton through the noſtril. Towards the concluſion of the cure, and when the wound is quite healed after this operation, gentle preſſure by the ſimple machine, repreſented in Pl. III. which any common workman is capable of making, may prove beneficial ; and in ſome caſes its timely uſe may render the operation needleſs, by preventing farther diſtention of the *Sac*, and reſtoring its tonic power or elaſticity, in caſe the fluid in it is not become at all purulent, and the *ducts* remain open. It will be proper to uſe ſome aſtringent lotion at the ſame time ; taking particular care to have the machine well adapted to the part, and that it be conſtantly worn a due time. It ſhou'd alſo be remembered, whenever it happens that the machine has been off any conſiderable time, to preſs the fluid well out of the *Sac* with the finger, before the application of it again. However, this is a diſeaſe which demands the Surgeon's nice attention in the different ſtages, as we may be well informed, by Mr *Pott's* treatiſe on this ſubject. (*a*)

I THINK this machine made of well tempered iron, of ſuch ſubſtance as will admit of bending eaſily with pliers, if not with the fingers alone, to adapt it exactly to the part, is preferable to that which has a ſcrew affixed to the pad, and not ſo apt to ſlip from its place. It is to be covered with velvet or ſilk : the pad, formed of due dimenſions and prominence, ſhou'd be ſtuffed with cotton for the greater eaſe, and covered with oiled leather ; but after all it will be proper to defend the part ſtill farther againſt chafing, by a bit of common plaſter, renewed as often as it grows ſtiff and hard. The end of the ribband, which paſſes over the top

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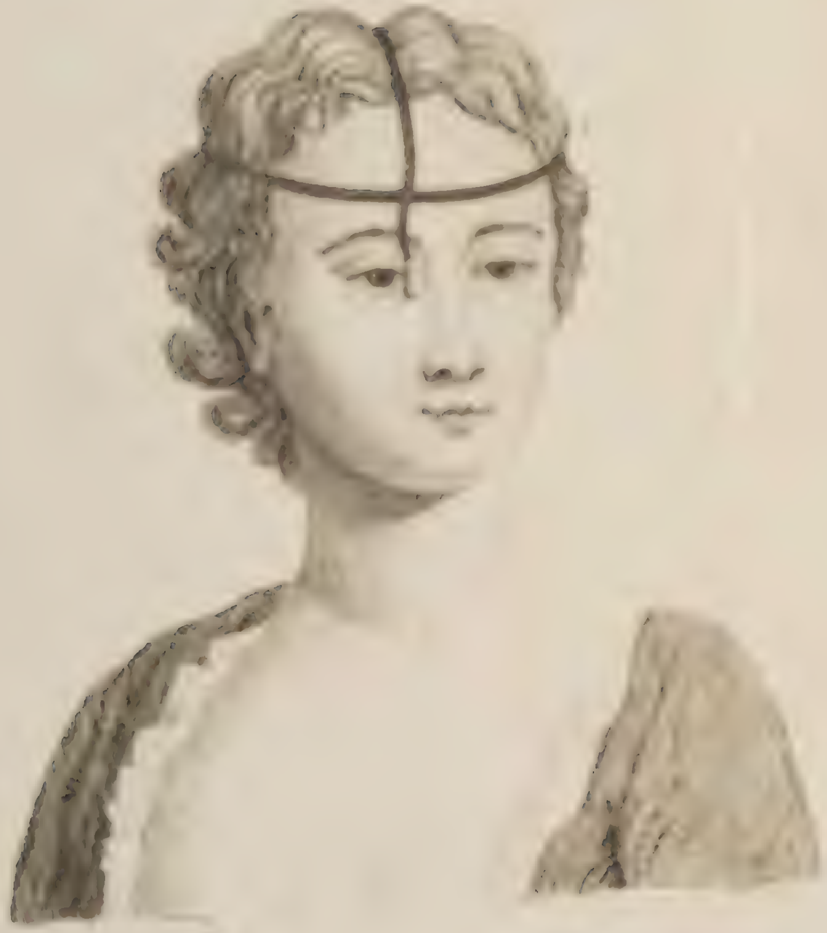
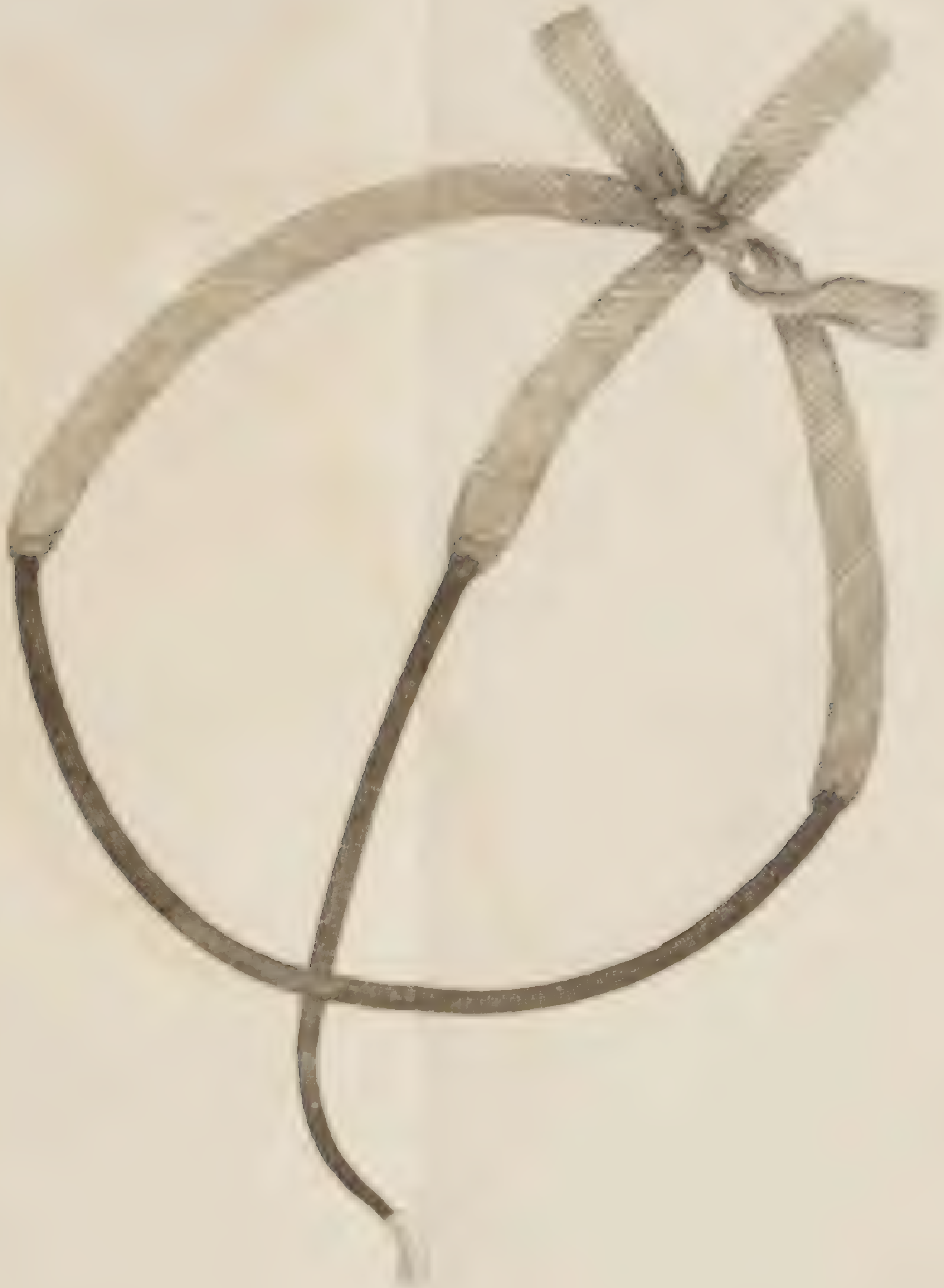
(*a*) Profeſſor Monro's Eſſay upon this Subject, in the 3d Vol. of the Med. Eſſays ; and alſo ſeveral publiſhed in the 2d Vol. of the Mem. of the Royal Acad. of Surgery, deſerve reading with particular conſideration.

top of the head, is to be confined under a knot made with the other ribbands behind it, and then reflected and pinned upon itſelf. In fixing the machine to give the pad a proper degree of preſſure and eaſy regular bearing, the utmoſt care is required; for upon theſe circumſtances abſolutely depends its ſucceſs.

Pl. 3





Of dangerous *Hæmorrhages* at the noſe reſtrained, by a method not generally practiſed, when other attempts had failed.

I WAS called three times, in one hot ſummer, to perſons in *hæmorrhages* from both noſtrils at once; by the long continuance and profuſeneſs of which, their lives were evidently brought into imminent danger, notwithſtanding the various applications, and other proper treatment of good Surgeons to ſuppreſs the bleedings. In theſe alarming caſes, as it cou'd not be preciſely determined from what part of the noſtrils the blood flowed with ſuch impetuoſity, tents made with pieces of bougie, having long lint wound round them, after being jagged to prevent its ſlipping off, then moiſtened in the white of an egg beaten, and rolled in fine flour mixed with about $\frac{1}{6}$ of powder of roman vitriol, were gently thruſt into the whole extent of thoſe paſſages, to the poſterior noſtrils; and there left for ſome days, till the moiſture of the parts looſened them enough to be extracted without force.

The noſtrils were kept pretty ſtrongly preſſed together at firſt, for ſome hours, with the fingers and thumb, upon a compreſs dipped in cold vinegar, and renewed as often as it grew warm. Before the introduction of the tents, bougies were paſſed quite through to open the canals, and direct the length and curvature requiſite to be given them. By attending to theſe circumſtances they were introduced with very little difficulty or pain to the patients, who were then ordered to gargle their mouths and throats frequently with red wine and water, as long as ſhou'd be found neceſſary, to remove the inconvenience ariſing from the ſolution of the vitriol falling into the throat from the poſterior noſtrils; and the tents were kept ſecurely in the parts by a compreſs and proper bandage under the noſe. The patients were kept very quiet in all reſpects, and all due regard paid to diet, &c. (*a*)

(*a*) I have found ſuch kind of treatment of great uſe after extracting *Polypi* out of the noſtrils.—— Early in the laſt century, *Glandorpius*, a practitioner of great eminence at *Bremen*, wrote a learned treatiſe upon *Polypi*.

A remarkable caſe of matter long retained in the *Antrum Highmorianum*, or *Maxillary Sinus.*

September the 1ſt, 1759.

A REPUTABLE Tradeſman, in the fortieth year of his age, who had always lived a regular, temperate life, but had not a good conſtitution originally, and had long been ſubject to a variety of complaints, aſked my opinion concerning a tumor upon his cheek, of about three years ſtanding, which had been attended for a conſiderable time, with a frequent diſcharge of purulent matter, not only through one, but both noſtrils, the *Septum Narium* being eroded. The whole ſide of his face was alſo affected at times with acute pain extending to the head, and the eye was often thrown into ſpaſms to a great degree, which rendered him unfit for buſineſs, and his life very uncomfortable.

The Surgeons whom he had conſulted, in the Town where he dwelt, were unacquainted with his diſeaſe. Being a very intelligent, apprehenſive man, I endeavoured to make him ſenſible of the nature of his complaint, and ſhewed him the neceſſity of having a tooth extracted, correſponding with the *Sinus*, and then to have a perforation made into it, in order to obtain a free diſcharge of the matter, at this depending point, and give opportunity for dreſſing, and making ſuch applications to the affected parts, as they ſhou'd require: however, when he returned home, and delivered my opinion to the Surgeons, they did not acquieſce in it, but adviſed other meaſures, which cou'd not ſucceed.

Two years after, he applied to me again, in a much worſe ſtate than when I firſt ſaw him, moſt earneſtly entreating me to take the care of him. Conſidering all circumſtances, I refuſed being concerned without a conſultation; after which, in the preſence of an able Surgeon, I extracted two teeth, in order to make an ample opening into the *Sinus*; upon doing which with a ſmall chiſel, firſt making two perforations with a large awl, a great quantity of pus, intolerably fetid, was diſcharged, and the violent pain of his face, and the ſpaſms of his eye, immediately ceaſed.

The membrane which lines this cavity was deſtroyed, and the bone carious in many places, in conſequence of the long detention of the matter; but in length of time he was cured, by injections of *Aq. Calcis, Tinct. Myrrhæ & Mel roſac.* with ſuch kind of applications, after having many exfoliations, and enjoys a better ſtate of health than he did before this diſorder. As he was of a lax and hectical habit, the Bark, Elix. Vitriol, Aſs's milk, and exerciſe on horſeback, long perſevered in, proved very beneficial.

I have been concerned in ſix caſes, beſides this, where matter was formed in the *Maxillary Sinus*, in conſequence of inflammation, attended with great pain, all which were cured by ſuch kind of treatment as has been mentioned; but the matter was not diſcharged by the noſe, through the communication with that cavity, nor was the bone ſo affected, in any of the other as in this, they being of ſhort duration before the openings were made.——See *Monro's* Oſteology, concerning the communication between the *Maxillary Sinus* and the noſe.

A Perſon reſtored to ſight from almoſt total blindneſs of both eyes, by the uſe of the Solution of *Merc. ſublimat. corroſiv.*

AFTER theſe papers were ſent to the preſs, a Surgeon at *Haleſworth* in *Suffolk*, brought to me at Doctor *D'Urban's*, a Gardener, who ſome time before had received a violent blow with a man's fiſt upon his right eye, which cauſed ſuch an opacity of it, as excluded the rays of light: and what added, in the higheſt degree, to this poor man's calamity, whoſe labor was neceſſary for the ſupport of his family, was, his having alſo loſt all uſeful ſight of his other eye, a great many years, by the like accident, as he informed us, notwithſtanding the utmoſt care of a good Surgeon to prevent it.

In the preſent caſe other proper means having alſo proved ineffectual, I ſtrongly recommended the trial of the mercurial

Solution, from the extraordinary efficacy I had obſerved of it; but did not the leaſt expect it wou'd have any effect upon the old caſe: however, in a few weeks he began to be more ſenſible of impreſſions from luminous bodies in that as well as in the other eye; and after a regular perſeverance in the uſe of the medicine about two months, he was reſtored to ſuch a degree of ſight as to enable him to write legibly and to pick up pins thrown upon the floor, which proofs he gave us; but what aſtoniſhed us moſt of all, he poſitively declared that he cou'd ſee better with that eye of which he had been long blind than with the other.

THERE ſtill remain partial opacities in both eyes, and the viſual rays not entering in their true direction, nor being properly refracted, viſion is indiſtinct and imperfect. He ſees objects to the greateſt advantage when he looks down upon them.

DURING the uſe of the medicine he was let blood now and then, lived upon a cool diet, had his body kept open, and drank proper diluents very liberally; a ſeton was alſo drawn into his neck; from which I have often ſeen very good effect in inflammations of the eyes. (*a*)

(*a*) I have ſeen ſingular good effects from giving a medicine of this nature, in very ſmall doſes as an alterative, in other as well as in theſe and venereal caſes, by continuing it a long while, where I have had reaſon to believe the cauſe of the diſeaſe was an obſtruction of the minuteſt order of veſſels; preparing the medicine in ſuch a manner as to be given by drops, in ſome appropriate vehicle agreeable to the ſtomach, obſerving the ſame general rules that have been mentioned during the courſe. From my own experience I am convinced, the moſt proper time of taking this medicine in ſuch caſes, is at the patient's going to bed; it generally raiſes a gentle *Diaphoreſis.*

A glandular tumor extirpated ſucceſsfully, which had been growing more than twenty years to the circumference of 14 inches, extending from the root of the ear unto the cheek, and far down the neck.

IN the beginning of *June*, 1757, Mrs. B. of A. about forty five years of age, and healthy in all other reſpects, firſt aſked my advice in this caſe; afterwards, in a conſultation of a Phyſician and four Surgeons beſides myſelf, it was unanimouſly agreed, from the threatening aſpect of the tumor, that the operation was adviſable, without any farther delay, though the ſeaſon was unfavourable, on account of the exceſſive heat of the weather.

THESE Gentlemen attended the operation, *July* the 11th. The tumor required to be diſſected off with great caution, to avoid the ſubjacent blood-veſſels; not one of which was opened of any dangerous conſequence, nor did the diviſion of the *ſalival duct* prove any obſtacle to the healing of the wound, by the uſual treatment.

We examined the tumor after it was extirpated: the glandular ſubſtance of it was in a ſcirrhous ſtate, and in the ſuperior part, immediately under the ſkin, which was of a duſky red colour, and ready to burſt, we found about a quarter of a pint of a blackiſh, oily fluid, where we had obſerved a fluctuation before the operation.

It may not be amiſs to obſerve, that when we may reaſonably ſuppoſe we have effectually ſtopped the *hæmorrhage*, by ligatures or otherwiſe, after any operation, wherein many conſiderable blood-veſſels muſt unavoidably be divided, it will even then be prudent to wait a little while, and ſhou'd the patient grow faint, till the pulſe riſes, before we finiſh the dreſſing of the wound; leſt any retracted veſſel, which may have eſcaped our notice, ſhou'd bleed ſoon after. This accident has often happened through haſte and inattention; and whenever it does ſo happen, it will occaſion the more trouble, beſides alarming the patient and by-ſtanders, to our prejudice.

Since I was obliged to retire from buſineſs on account of my valetudinary ſtate, Mr. *Garneys*, a Surgeon of character at *Yoxford* in *Suffolk*, brought a patient to me at *Haleſworth*, after theſe ſheets were ſent to the preſs, in a ſimilar caſe, and about the ſame ſtanding as the preceding, only the tumor was not quite ſo large. I adviſed exciſion in this caſe, as the only expedient, and the operation ſucceeded as happily.

An *Exoſtoſis* of the lower jaw-bone of an enormous ſize.

A WOMAN between two and three and twenty years of age, who had been ſervant to the laſt mentioned patient, came to aſk my opinion concerning this extraordinary ſwelling, after having been more than a year in the hands of an ignorant and impudent pretender, who, by promiſing a cure, had got all the money ſhe had. The bone was enlarged in its whole ſubſtance uniformly from the angle to the chin, very prominent, and meaſured 15 inches in circumference from thoſe points. Notwithſtanding its ſize it occaſioned very little impediment in the motion of the jaw, but maſtication of her food was wholly performed on the oppoſite ſide. Her complexion denoted high health; and ſhe was very ſtrong and vigorous, without any other complaint whatever; nor was the tumor painful, which had been growing to this magnitude between two and three years. There had been no manifeſt increaſe of it, for ſome months before ſhe came to me, and when I ſaw her ſome years after, I diſcovered no alteration in it.

Two years ago I was conſulted by a gentleman, who was pretty far advanced in years, and had for ſome time complained of pain upon his left temple, ear, and adjacent parts, which was now increaſed to ſuch a degree as to require the conſtant uſe of opiates, in large doſes, to aſſuage it. In this caſe, wherein we found the whole *Os Temporis* conſiderably ſwelled, we thought it moſt expedient in our conſultation, to adviſe only a palliative method. The patient not long after fell into a delirium, and died in ſtrong convulſions. Leave cou'd not be obtained to open his head after death, to inſpect the ſtate of the brain, &c. (*a*)

(*a*) See Monſ. *Petit's* Traite des Maladies des Os, Chap. xvi. de l' Exoſtoſe & de la Carie.

An extraordinary caries of the lower jawbone.

SOME years ago I was ſent for to a Lady about ſixty years of age, who in a fever accompanied with a violent fit of the tooth-ach, had a carious tooth extracted; in conſequence of which very great inflammation and ſwelling ſeized the whole ſide of her face, and terminated in an abſceſs. When I was called to her about ſix weeks after, upon paſſing a probe into the ſocket whence the tooth was extracted, it went quite through the bone, without any reſiſtance, to the ſkin below. In that depending part an inciſion was made of a ſuitable length to lay the ſuperior part dry, by giving a free exit to the matter, which was very fetid and acrid; then the gum on the inſide was ſeparated from the carious bone, and the looſe teeth removed. By dreſſing the parts according to the general rules of Surgery, nature caſt off, in about two months, as much of the whole ſubſtance of the bone at once as contained five teeth, making good the loſs with an oſſeous ſubſtance, which afterwards became ſo firm that ſhe cou'd chew upon it.

A ſpecies of tumor called by the common people the Mumps.

EARLY in the ſpring after the hard winter in 1739, the ſevereſt in the memory of man, this diſeaſe appeared, which I had never ſeen nor read any deſcription of.

It began with a ſlight fever; the face and throat ſwelled ſoon after, looking of a little deeper colour than a damaſk-roſe; but the tumor ſeldom extended ſo far as the eyes. It was chiefly external; and ſometimes, in a few days, it increaſed to ſuch a prodigious ſize, as to obliterate the features, and put the patient out of knowledge of his moſt intimate acquaintance: yet that quick and extraordinary diſtention of the parts was, in general, attended with but little pain.

THE diſeaſe was chiefly among children, and young perſons of the poorer ſort. The general *antiphlogiſtic* method ſucceeded very well. It was rarely mortal, and ſeldom terminated in an abſceſs; but when that happened, it healed kindly by the common treatment.

In five or ſix caſes wherein I was concerned, the tumor in the face, &c. ſubſided in three or four days, and the peccant matter was from thence immediately tranſlated to the teſticles; but this circumſtance required no alteration in the general method of cure.

In ſome, a thickneſs and hardneſs remained upon the *parotid* and *maxillary* glands, after they were well in every other reſpect; which I found readily yielded to ſmall doſes of *merc. dulc.* with gentle purging at proper intervals, keeping the affected parts moderately warm, and the patient to a ſuitable regimen, during the mercurial courſe; and ſometimes I uſed a mild mercurial ointment.

This diſeaſe continued rife all the ſummer ſeaſon, which was remarkably cold, dry and unfruitful, and did not intirely diſappear till autumn 1741.

The ſummer after the diſappearance of this diſeaſe, the malignant ſore throat, which has lately been accurately deſcribed by three very learned Phyſicians, as it was by *Aretæus* two thouſand years ago, firſt appeared in this kingdom, and continued more than ten years before its total diſappearance, in that part of it where I then dwelt, about ten miles from the City of *Norwich*; but it was not equally violent during the whole of that time, it raged and was moſt mortal in the years 1745 and 1746. I attended a great number in it, and, from what I obſerved, there appeared ſome analogy between this diſeaſe and that among the horned cattle; which began, in this iſland, in the year 1715, continuing more than 40 years. *Bonetus* taking notice of ſuch a diſeaſe in the throat, ſays it was preceded by a plague among that ſpecies of cattle; the *pathognomonic* of which alſo appeared in the throat.——The celebrated Monſieur Le *Cat*, Doctor of Phyſic and Surgery at *Rouen* has alſo written upon this ſubject.

A glandular tumor, ſituated under the ear upon the articulation of the jaws, ſucceſsfully extirpated.

June the 1ſt, 1755.

MR. J. B. of O. aged about thirty, a gentleman of a lively temper, but not of a good conſtitution, had this tumor gradually growing three or four years, from a very ſmall beginning, to a conſiderable ſize; and its increaſing exceedingly in the laſt ten or twelve months, affected his mind very much, making him more than ordinarily anxious about the removal of it.

WE were of opinion in conſultation, that the operation was practicable; and after the patient was duly prepared, I performed it, with greater eaſe to him and leſs trouble to myſelf, than I expected; for, upon removing an oval piece of the teguments, and laying the glandular ſubſtance in view, I found it ſo diſengaged from the circumjacent parts, that I turned it out with my finger, having very little farther uſe for the knife.

THE wound diſcharged, during the cure, a great quantity of ſaliva, eſpecially upon maſtication, which was avoided as much as poſſible, by the nature of the food he was allowed.

WHEN the wound was contracted into a narrow compaſs, I directed a ſtrong elaſtic ſteel machine, reſembling that contrivance which is made uſe of to keep the wig cloſe to the ears, with a ſoft pad to preſs upon the aperture of the ſalival duct, and reſt upon the oppoſite temple; by which means and dreſſing but ſeldom, with lint moiſtened in *Alcohol*, and a common plaſter, it was ſoon perfectly healed.

THE machine, as deſcribed in plate 4 fig. I. was kept in its proper poſition, with a ribband paſſing behind the head, from one branch of it to the other, and another ribband affixed to that behind the head, in the middle, and to the machine on the top of the head.

A violent extenſion and contuſion upon the muſcles of the neck, attended with uncommon conſequences.

May the 3d, 1755.

THE daughter of H. L. of S. was thrown backward off a horſe, and received an extenſion and contuſion upon the muſcles ſerving to draw the head backwards. When ſhe was brought to me, her chin was fallen upon her breaſt; and from the friction by an involuntary and conſtant vibrating motion, the ſkin was fretted off both theſe parts; which, with the pain ſhe ſuffered upon the poſterior part of her neck, made her life very uncomfortable.

VARIOUS applications and bandages had been tried for two years, to no purpoſe. I gave directions for making the machine in plate 4, fig. II. by the uſe of which alone, the relaxed parts recovered their tone and action, and ſhe was perfectly cured in ſix months. By the ſame contrivance I have ſince cured a ſimilar caſe of a year's ſtanding, only the oſcillation of the head was not ſo much.

A MACHINE of this kind, with a branch to paſs up on each ſide of the head, may prove uſeful to keep the head and neck in their true direction, after the operation for the wry-neck; and, perhaps, anſwer the end better than the technical bandage uſed on that occaſion; but I cannot recommend it with certainty, having never had an opportunity of experiencing its uſe in that caſe: yet, in ſeveral inſtances, where there has been ſuch an effect produced by rigidity or debility of the muſcles, and the operation impracticable, I have found it very beneficial; particularly in one, where the diſorder proceeded from a diſtortion of the *cervical vertebræ*, with a great thickneſs of the muſcles in conſequence of a fever. I was conſulted in this caſe, when the Surgeons concerned had determined to divide the *Sterno-maſtoid* muſcle, which appeared to me not the leaſt affected; but convincing them of their miſtake, the performance of an operation was prevented, that muſt have proved very injurious.

Of a diſtorted neck.

In this caſe I directed the machine to be ſo conſtructed, that the patient received neceſſary ſupport from it, with liberty of moving the head in proper directions, which motions I earneſtly adviſed ſhou'd be frequently performed, and that a ſmall quantity of the following Liniment ſhou'd be well rubbed into the rigid parts twice a day with a warm hand, keeping them warm with flannel: and this method was attended with ſuch good effect, that in about ſix months the diſorder was ſcarce perceivable.

R. Medull. rec. & moll. Crur. bovin. ℥*j.*
Unguent. cærul. mit. ℥*ſs.*
Spirit. Sal. ammon. ʒ*ij.*
Ol. ex Pedib. bovin. rec, extract. q. s.
f. Liniment. relaxans.

I have alſo cured a ſimilar caſe very lately by the ſame method, after various other means had been uſed to no purpoſe.

PLATE 4. FIG. 2.

A. A. The fixed points to reſt upon the top of the ſhoulders.

B. The branch to paſs up the ſide of the head, and bear gently againſt it to keep it ſteady.

C. The branch to come forward for the chin to reſt upon, having a ſoft concave pad annexed to it, moveable with a ſcrew to raiſe the head gradually.

D. The bow to be placed behind the neck.

E. E. The ſtraps of leather to paſs from the ſhoulders under the arms and hang unto the pins f. f.

THIS machine may anſwer the end without the ſcrew, as I have found, by making that limb of it properly tempered to admit of bending and ſtanding firm to the part.

Fig. 1.

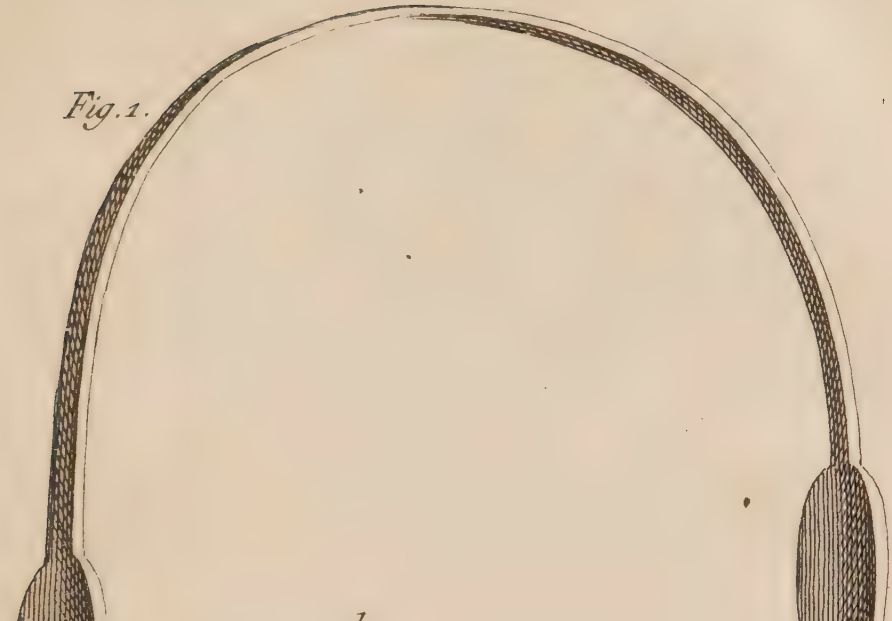
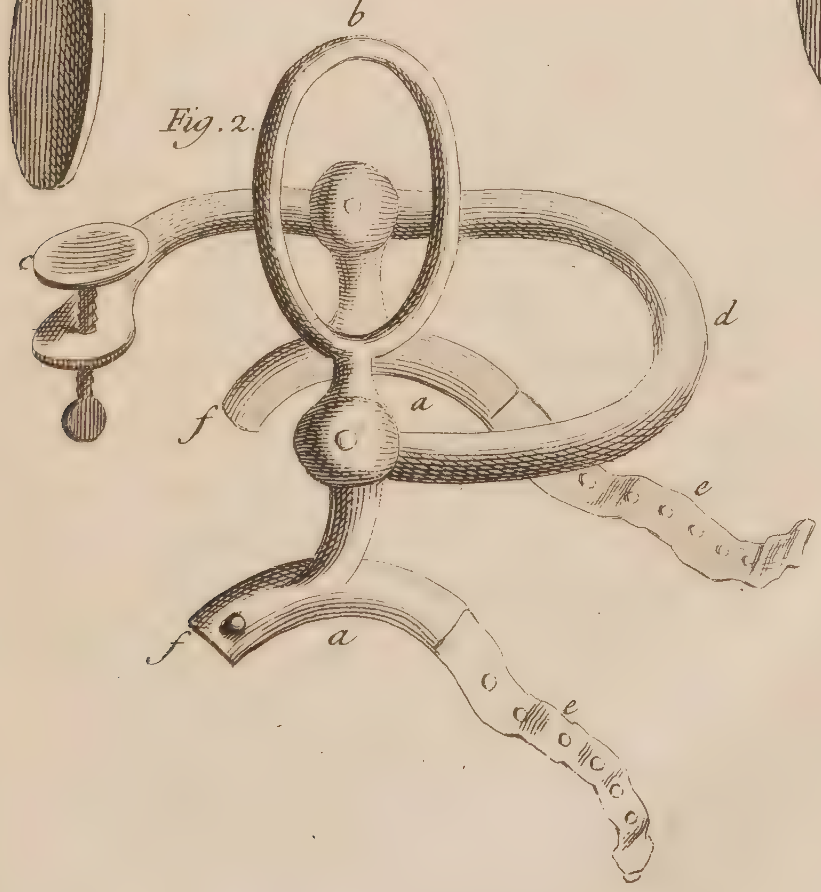


Fig. 2.



The following letter to my very good Friend Doctor *Monſey*, Phyſician to Chelſea-Hoſpital, gives an account of an unprecedented diſeaſe of the *Platyſma Myodes* producing ſurpriſing effects and appearances.

Dear Doctor, *Norwich, December* the 10th, 1759.

I AM truly ſenſible of the honor you do me in deſiring your relation, Mr. *Horncaſtle*, to aſk my opinion in his ſon's caſe, which indeed appears to me ſo ſingular, in all reſpects, that I have never before ſeen any thing like it, nor can I find one ſimilar to it in any book I have, ancient or modern; and I am greatly at a loſs to deſcribe it, in ſuch a manner as I wiſh to do, to give you a clear idea of it; but I will endeavour to do ſo as well as I can.

THE young Gentleman is about 14 years of age, apparently of a ſtrong conſtitution; he was always healthy, and is ſo now, except the odd complaint, of which you have had an imperfect relation from Mr. *W——ll.* The ſeat of the diſorder is very obviouſly in the *Platyſma Myodes,* which is become exceedingly rigid, and moſt ſo juſt beneath the jaw, to which it is attached, from the chin to the angle; the ſkin over it appearing like the cicatrice after healing a burn. This ſide of his face, quite from the point of his chin, is much ſhrunk, and drawn awry, by the contraction of the muſcle, particularly the corner of his mouth, when he turns his head to the oppoſite ſide; a portion of this cutaneous muſcle being attached to the *Sphincter Oris.* From the inferior part of the eyebrow, at the internal angle of the eye, to near the *vertex,* there is a kind of furrow upon the ſkin, about half an inch broad, having a ſhining, poliſhed appearance, like a cicatrice in conſequence of a wound, without any hair, which ſeems to be fallen off for want of nouriſhment; and from the corner of the eye downwards, there is the ſame kind of appearance in a leſs degree. (*a*) Violent ſpaſms frequently return, beginning at

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(*a*) See Plate annexed.

at the inſertion of the muſcle, and terminating at the eye, attended with great pain; and ſometimes the ear, with the temporal and frontal muſcles are influenced and affected in the like manner. The parts, according to the courſe of the inſertion of the muſcle into the jaw-bone, are conſiderably thickened, not the leaſt inflamed externally, and but very little painful when touched, unleſs they are ſtretched at the ſame time. The ſubjacent muſcles do not yet appear to be affected.

It is about three months ſince Mrs. *Horncaſtle* firſt took notice of this complaint, by the corner of his mouth being drawn a little awry; but the exact date of the diſorder cannot be aſcertained, any more than the cauſe whence it proceeds. This I have endeavoured to inveſtigate, but at preſent it is too much concealed in obſcurity for my penetration: perhaps it may proceed from the ſame cauſe, whatever that is, which produces the wry-neck, by bringing a rigidity and contraction upon the maſtoid muſcle.

THIS caſe appearing of ſuch an extraordinary nature, I was deſirous of giving the father and mother all the ſatisfaction that this place will afford, in a matter ſo intereſting to them; on which account we have had a conſultation of a Phyſician and two Surgeons, of whoſe judgment I think highly. We entirely agree in opinion concerning the part affected; and they do not remember, any more than I, to have ſeen, heard or read of ſuch a caſe; nor do they ſee any probable cauſe whence the diſorder ariſes.——What is to be done in this doubtful matter, remains the point in queſtion; but no method will be put in practice, till I am favoured with your anſwer, which I beg to have as ſoon as poſſible, for my own ſatisfaction, and to relieve the painful ſuſpence and anxiety, that fond parents muſt naturally have for an only child, and, in all other reſpects, a very fine youth.

WHAT is to be expected from other topical or internal medicines than have been uſed, I cannot ſay; for the diſeaſe has not only reſiſted, but evidently increaſed, according to Mrs. *Horncaſtle's* obſervation, under the rational methods preſcribed by Doctor *T——r* of *L——n*, after he had ſeen, and ſtrictly examined, the caſe, as you were informed by Mr. *W——ll's* letter.—— Shou'd all other means that can be thought of, after giving them a fair trial, prove ineffectual to remove the contraction, what think you of a total diviſion of the muſcle tranſverſely by inciſion, at the moſt rigid part juſt below the jaw? I propoſed this method to the conſideration of the Gentlemen in conſultation, and they unanimouſly agreed with me, that it was not only practicable, in their opinion, but expedient ſhou'd all other attempts fail.

PRAY, Sir, conſider the caſe yourſelf, and conſult the moſt experienced Phyſicians and Surgeons of your acquaintance, upon this important occaſion, in order to direct our unexperienced judgments the better, and furniſh us, if poſſible, with precedents, and a method of cure that may be relied on, warranted by obſervation and experience, the beſt guides of all; in defect of which we ſhall be glad to know what are thought the moſt probable and rational means of curing or relieving the patient, in your and their opinion.

If Mr. and Mrs. *Horncaſtle* find no reaſon to the contrary by your anſwer, which will be impatiently expected, ſhe intends to come with her ſon directly, to put him under my care; but I did deſire, thinking it muſt be more to their ſatisfaction and the child's advantage, that they wou'd carry him to *London* for advice and aſſiſtance, in ſuch a ſingular caſe.

I heartily wiſh you health, and am,

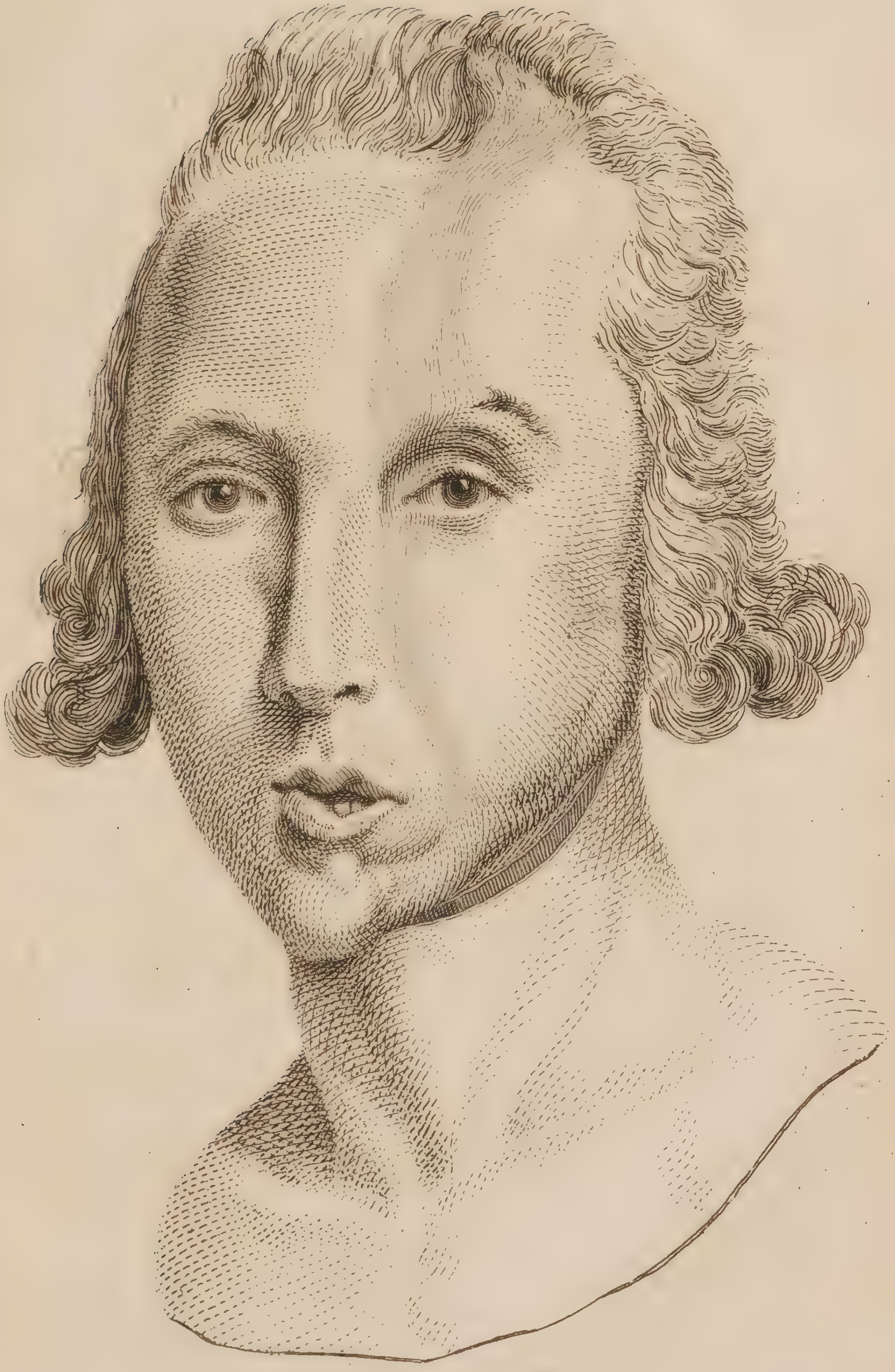
Dear Sir,

Your moſt obliged

humble Servant,

B. GOOCH.

Pl. 5.



Doctor *Monſey* told me, in his anſwer to my letter, that the moſt experienced of the faculty, whom he had conſulted on this occaſion, in *London*, declared they were entire ſtrangers to ſuch a caſe. The method he ſuggeſted was approved in conſultation here, and was very regularly followed for ſome months, in order to relax the contracted parts, &c. but to no better purpoſe than the meaſures taken before, the diſorder manifeſtly increaſing under all of them; from which conſiderations, it was reſolved upon, to divide the muſcle, as propoſed in my letter. In the preſence of the Gentlemen there mentioned, I performed the operation, by firſt dividing the ſkin and cellular membrane tranſverſely, a little below the jaw, as repreſented in the plate, the whole breath of the *Platyſma Myodes*, the patient having his head reſted, and ſteadily held againſt a perſon's breaſt, and the blood ſpunged up, by an aſſiſtant, as I proceeded. After laying this thin cutaneous muſcle quite bare, ſeparating the lips of the wound a little more than their natural receſſion, he was raiſed up, and turning his head towards the oppoſite ſide, it appeared as much confined as before, ſhewing the muſcular fibres upon the full ſtretch, violently diſtorting the corner of his mouth: I then totally divided this muſcle, bringing the membranes of the ſubjacent muſcles in view, by a cautious diſſection; after doing that, I deſired him to turn his head again, and found it then had perfect freedom in its rotatory motion, without affecting the face or corner of the mouth, as it did before the diviſion of the muſcle. Theſe gradual ſteps were intentionally taken to demonſtrate the ſeat of the diſeaſe, that circumſtance being doubted by ſome, who had examined the parts, and by others from a deſcription of the caſe.

The wound was healed by the common treatment without any ill accident ſupervening: after digeſtion, and the parts being in a ſtate to admit of it without pain, I adviſed him to keep his head in gentle motion pretty frequently, in order to obviate the inconvenience of future rigidity or ſhortneſs of the muſcle; which effectually anſwered the deſign.

This operation ſucceeded happily, in ſtopping the progreſs of the diſeaſe, and removing

moving the painful ſpaſms immediately, without any return; but the ſide of his face, that was affected, ſtill remains much leſs than the other: however, he now enjoys good health, and is able to bear long journies, with other fatiguing buſineſs, very well.

Doctor *Hunter*, to whoſe friendſhip I am under a great many obligations, ſaw this young Gentleman in *London* with Dr. *Monſey*, in the year 1765, and was ſo ſtruck with the ſingular appearance of his face, that he expreſſed an earneſt deſire of ſeeing a hiſtory of the caſe, with a drawing annexed, repreſenting the wound, &c.

See Plate 5.

An extraordinary caſe in a ſcrophulous habit.

June the 6th, 1758.

J. W. in the 25th year of his age, who, in his childhood, had been afflicted with a ſcrophulous diſorder, but for many years paſt had been ſtrong, and apparently healthy in all reſpects, received a hurt by a fall, upon the *clavicle* where it adjoins to the *Sternum*, and upon the *Sternomaſtoid* muſcle at its inſertion. The caſe was neglected for ſome weeks, when that muſcle became rigid, ſwelled and painful quite to its origin; and a violent cough enſued, attended with great difficulty of breathing, and a fever, for which likewiſe no proper means had been uſed. He alſo complained of extreme pain upon the calves of his legs, the interior part of the right thigh, and the outſide of the left: upon all which parts, hard ſwellings ſoon followed, that ſeemed to be confined to the muſcles; beſides which the inguinal glands, on the left ſide, were much affected. His blood was uncommonly thick and ſizy; ſoon after being taken away, it appeared like a lump of glue; the coheſion was ſo ſtrong, as to admit of turning the porringer the bottom upwards without falling out, and it had very little ſerum upon ſtanding. Bleeding was frequently repeated, lenient purgatives adminiſtered, and *nitre* given freely; keeping him to an exact regimen, with the very plentiful uſe of common emulſion, pectoral emulſion, with *Sperma Ceti*, and other diluents of that nature. Cataplaſms of bread and milk, fomentations and embrocations, of the emollient and anodyne kind, were applied to the affected parts without relieving his pains, which were very violent both day and night, but moſt in the night, having then always ſome increaſe of the fever: they were ſometimes intolerable, requiring large doſes of opiates to procure a little eaſe and reſt.

After about three weeks continuance in this deplorable ſtate, I obſerved a manifeſt fluctuation in the tumor, the whole length of the maſtoid muſcle, which I opened by an inciſion of two or three inches long, juſt above the *ſternum*, and diſcharged a large quantity of a thin, fetid, bloody fluid; by which I diſcovered a deep and extenſive *caries* upon that bone, and an unfathomable *ſinus* underneath it, as well as the whole length of the muſcle. After laying the carious part of the bone quite bare, I dreſſed it according to general rules, with *Tinct. Myrrhæ*, ſuppreſſing the fungous fleſh occaſionally, by touching it with the lunar cauſtic; and conveyed into the *ſinuſes* with an ivory ſyringe, ſome of *Belloſte's* ſamaritan Balſam warm, having a ſmall portion of *Unguent. e Gum. Elemi & Tinct. Myrrhæ* added to it, applying ſoft, even lint ſuperficially, without introducing doſſils into them; by which treatment the matter ſoon became better conditioned, and the quantity gradually decreaſed. For ſome time he conſtantly complained of the taſte of the applications in his mouth upon dreſſing, and ſaid he was very ſenſible of a kind of yielding in one part of the *Gullet*, when he ſwallowed his food; but I cou'd never diſcover any perforation in that canal, by the paſſing of either meat or drink thro' the wound.

The tumors upon his thighs and legs ſtill remained hard and painful, without any external appearance of inflammation; whence I concluded the inflammations were upon the inveſting membranes of the muſcles, extending even to the cellular membrane which connects the muſcular fibres together, the very bellies of the muſcles ſeeming affected.

About a month after, there was a very ſenſible fluctuation from the hip almoſt to the heel, on the left ſide, ſtill without any appearance of inflammation upon the ſkin; which made ſeveral of the faculty agree with me in opinion, that the fluid had been contained in the membranes that envelop the muſcles. In this ſpace I made four openings, each about two inches long, at due diſtances, two on the thigh, and two on the leg; by which an immenſe quantity of a fetid matter was diſcharged, reſembling putrid *ſerum* and *craſſamentum* ſtirred together, after ſtanding ſome days in the air. After theſe openings were made, we ſtrictly examined the parts, and cou'd readily paſs our fingers into the very bodies of the muſcles, where undoubtedly blood-veſſels were eroded, occaſioning this appearance of the matter; and this examination confirmed the opinion we entertained before the openings were made. Next day I diſcovered a *ſinus* from the ſuperior part of the thigh, quite to the inguen, and another, from the ſame part of the thigh, through it, as far as the adipoſe membrane, juſt below the femoral artery, where I made another opening of the ſame extent. By theſe openings the matter paſſed off very freely: I dreſſed them ſuperficially; and chiefly with pledgets of ſoft tow, moiſtened in a ſtrong decoction of walnut-tree leaves moderately warm, as recommended by *Belloſte* in his Hoſpital-Surgeon, after injecting into the *ſinuſes* a little of the balſam before mentioned; uſing expulſive compreſs and bandage, when the condition of the matter was changed, and the parts in a ſtate to admit of union..

TEN days after having diſcharged thoſe collections of matter, the tumors of the *muſcul. gaſtrocnem. rect. & vaſti.* on the other leg and thigh, having undergone a ſimilar change, were alſo opened amply on the depending parts: the fluid had exactly the appearance of that proceeding from the other, and the treatment after opening was the ſame.

Before theſe tumors were opened, the conſtant pain and fever had emaciated the patient to a great degree; and after they were opened it was very much to be feared, the vaſt diſcharge from ſo many large cavernous ulcers of ſuch a nature, wou'd have ſunk him ſtill more, and that he muſt have ended his life in a *maraſmus*; but the large depending openings, giving the matter a free and uninterrupted exit, together with eaſy dreſſings, as have been mentioned, ſucceeded beyond our hopes. The diſcharge from the different parts was ſoon moderated, and he was perfectly cured in about ſix months.

The patient's diet was of the ſoft and moſt nutrimental kind, as good broths, milk, animal food of the eaſieſt digeſtion, &c. and on account of the extraordinary depravity of the fluids and laxity of the ſolids, the bark and elix. vitriol were taken as plentifully as he cou'd bear them, with ſmall quantities of rhubarb occaſionally, in order to prevent the inconveniences attending coſtiveneſs.

EARLY in this diſorder, a remarkable dirty, ſooty appearance over ſpread the ſkin of his body and limbs, almoſt every where, to a much greater degree than I ever ſaw, which gradually wore away, as he recovered fleſh and ſtrength, with a free perſpiration.

HE is now a very ſtrong luſty man, has the perfect uſe of his limbs, and performs his daily hard labor without any complaint.

Of an aqueous *Bronchocele*, or incyſted tumor upon the *thyroid* gland, attended with ſingular circumſtances, in a perſon about 16 years of age; for which caſe I am obliged to Mr. *Donne*, an ingenious Surgeon in the City of *Norwich.*

THIS patient was brought under Mr. *Donne's* care, *February* the 27*th*, 1760, and, at his deſire, I viſited him ſeveral times. After his death we diſſected and examined the parts concerned, with the utmoſt attention, apprehending there was ſomething very ſingular in the caſe, from the appearances in his life time, and it's ſurpriſing event; and then drew up the following hiſtory of it together.

THE tumor began many Years before application was made to a Surgeon, increaſing very ſlowly; but, in the laſt two years, it grew from the ſize of a nutmeg, to that of a large hen's egg, compreſſing the *larynx* and *trachea* ſo much, that in running or uſing any violent exerciſe, he breathed with great difficulty, and made a hooping noiſe in inſpiration; his face was always of a dark-red color, like that of a perſon almoſt ſuffocated; his voice was weak, and talking conſtantly brought on a tickling cough. This ſwelling was affixed to the *thyroid* and *cricoid cartilages* and part of the *trachea*; it's external ſurface was unequal; it extended higher on the right ſide than on the left, having ſomething of the lunated form of the *thyroid* gland; it's baſe was ſo large, that it covered the *carotid* arteries, and ſome part of it ſunk below thoſe veſſels.

Several Surgeons, in conſultation, were of opinion, that a fluid was contained in this tumor, conſequently an opening was made, by which about three ounces of an aqueous fluid was diſcharged, and the patient conſiderably relieved immediately in his breathing; but the next day a violent fever came on, attended with great oppreſſion of breath, a vexatious cough and a very irregular pulſe. Theſe ſymptoms were mitigated by bleeding, cooling and laxative medicines, &c. and the obſervance of a ſtrict regimen of diet; but during their continuance, the ſurrounding parts felt emphyſematous, without any appearance of the aqueous diſcharge from the wound, the whole ſurface of which was covered with a thick, viſcous ſordes. The fever ſubſided in about a week, but the tumor, from the firſt diſappearance of the aqueous diſcharge, began to increaſe again; and in this ſhort ſpace of time it was grown nearly to the ſize it was before the opening; his breathing alſo became difficult and laborious, in proportion to the increaſe of the tumor. From theſe conſiderations, in conſequence of another conſultation, it was determined to make an opening on the oppoſite ſide, in the moſt depending part, and to draw a ſeton through the openings; a free diſcharge followed, and the patient's difficulty of breathing was relieved as at firſt; however, a fever came on again, with the ſame ſymptoms attending it as before, only in a more violent degree, accompanied with great pain and difficulty of ſwallowing: he ſpoke and breathed like a perſon in an angina, and there appeared little hopes of his recovery, for many days; when, moderate breathing ſweats, a copious ſpitting, a diſcharge of well digeſted matter from the wounds, and an abatement of the fever, by the former treatment, gave a fair proſpect of ſucceſs. The fever went entirely off ſoon after, and his breathing grew daily better, though he was not abſolutely free from ſtricture upon the *larynx* and *pharynx*. Now, upon coughing, he threw up the cyſt of a ſmall hydatid, formed, we ſuppoſe by an obſtruction and gradual diſtention of a lymphatic: upon which accident, notwithſtanding Mr. *Donne* was in the room at the very time, and attempted to relieve him all he cou'd, he expired almoſt inſtantaneouſly.

These were the particular circumſtances of this ſingular caſe; which were eaſily accounted for, by examining and conſidering the ſtate of the diſeaſed parts. The *trachea* was ſo compreſſed and contracted in it's diameter, that any degree of irritation on the *glottis*, or a few drops of ſome fluid falling into the *trachea*, through the hole which will be hereafter deſcribed, where the tumor had a communication with it, might bring on a violent ſpaſmodic ſtricture:

and probably this was the immediate cauſe of the patient's ſudden death, by intercepting the air; for ſo long as the cyſt of the hydatid remained in it's ſituation, nothing cou'd paſs from the cavity of the tumor into the *trachea*; but when that happened to be diſlodged, ſome of the fluid might fall into it, and occaſion this fatal ſuffocation.

In order to a farther illuſtration of this very extraordinary caſe, we ſhall take notice of the particular appearances of the parts upon diſſection, which were ſent to Dr. *Hunter*.

The tumor was ſituated under the *muſculi ſternohyoidei* and *thyrohyoidei*, which were conſiderably ſtretched, and their breadth ſo much increaſed, that they appeared like one broad thin muſcle, covering great part of the anterior ſurface of the tumor, which laid obliquely croſs the *trachea*, extending rather higher on the right ſide, as has been obſerved; it's diameter tranſverſely was almoſt three inches, in the oppoſite direction not quite ſo much; it appeared to take it's riſe from the right ſide of the *thyroid* gland, lying upon part of the *trachea* and *thyroid* cartilage. The gland itſelf ſeemed to have been gradually dilated and extended over the cyſt of the tumor, formed by cellular membrane; for the glandular ſubſtance and this cyſt cou'd be ſeparated a ſmall ſpace at the anterior part, where they ſoon became ſo intimately united, as to leave no diſtinction of parts; but more laterally, they did not ſo firmly adhere, as to prevent their being eaſily divided. The tumor was extended over, and attached to, almoſt ⅔ of the *thyriod* cartilage, the whole of the *cricoid*, and ſix of the cartilaginous rings of the *trachea*, to which laſt it was was very ſtrongly connected; and ariſing from the *thyroid* gland on the right ſide as has been mentioned, it had forced the *trachea* conſiderably to the left; and as it's baſe laid over the *carotid* arteries, encompaſſing ¾ of the *trachea*, ſome part of it muſt conſequently lie deeper than thoſe veſſels.

Upon opening this cyſt we found it firm, and unequally thick, it incloſed the cyſt of another *hydatid*, ſimilar to that he ejected by coughing, immediately before his death, only much larger, and quite diſengaged from that proceeding from the cellular membrane, within which it was expanded. On removing the cyſt of this *hydatid*, the hole appeared through both the glandular ſubſtance, and the other kind of cyſt, admitting a common quill, which penetrated the *trachea*, between the firſt ring of it and the *cricoid* cartilage. The appearance of the preparation ſent to Doctor *Hunter* was altered, in ſome reſpects, from that which it had in it's recent ſtate, when the internal ſurface of the cyſt produced by the cellular membrane, was full of ſmall tubercles, covered with mucus, without any pus or ſign of ulceration. In opening the *trachea* and *larynx*, the parts about the *glottis* and *ventriculi campaniformes*, appeared to be affected with a kind of anaſarcous ſwelling; and from the lower edge of the *cricoid* cartilage, to the eighth cartilaginous ring of the *trachea*, the right ſide of the canal had been ſo forcibly preſſed upon by the tumor, that it nearly touched the oppoſite ſide.

REFLECTION.

THOUGH the ſituation of this tumor was a diſcouraging circumſtance, to attempt the extirpation of it by inciſion; yet, all things conſidered, with what appeared upon the diſſection and accurate examination of the parts, we are inclined to think it highly probable, that had an oval piece, of a proper ſize, been taken out, from the top to the bottom of it, a cure might have been effected, notwithſtanding the eroſion of the *trachea*: and the ſucceſs which has attended *Bronchotomy*, ſupports and encourages ſuch procedure.

Laſt year a Surgeon ſent a patient to aſk my opinion, concerning a tumor of this nature. I propoſed to his conſideration following the method juſt mentioned; but the tumor being yet little or no trouble or inconvenience to him, I believe nothing has been done.

Pl.6.

Fig. 1.

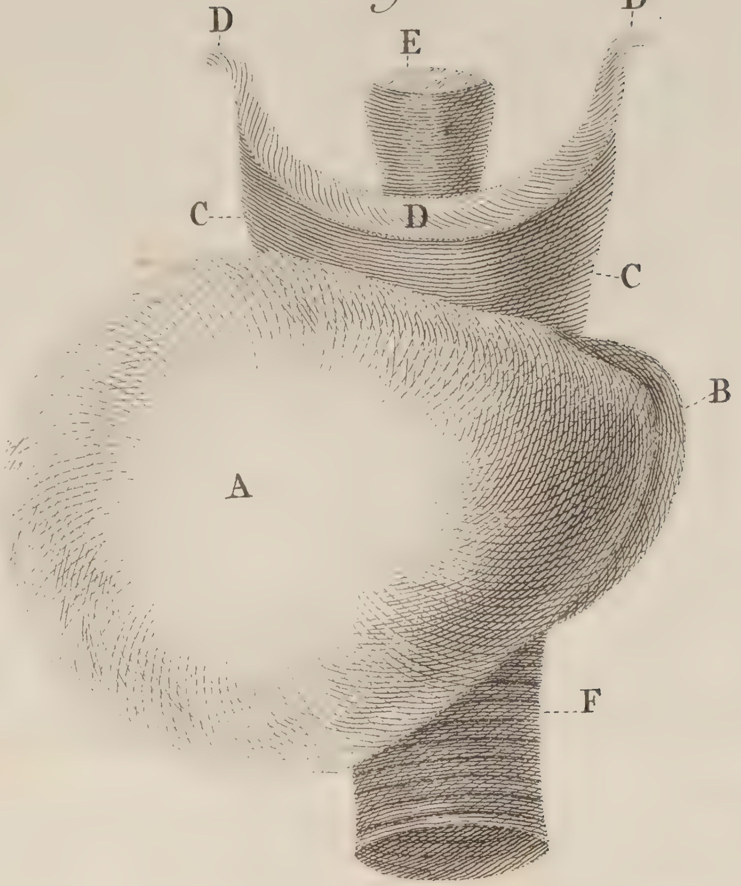


Fig. 2.

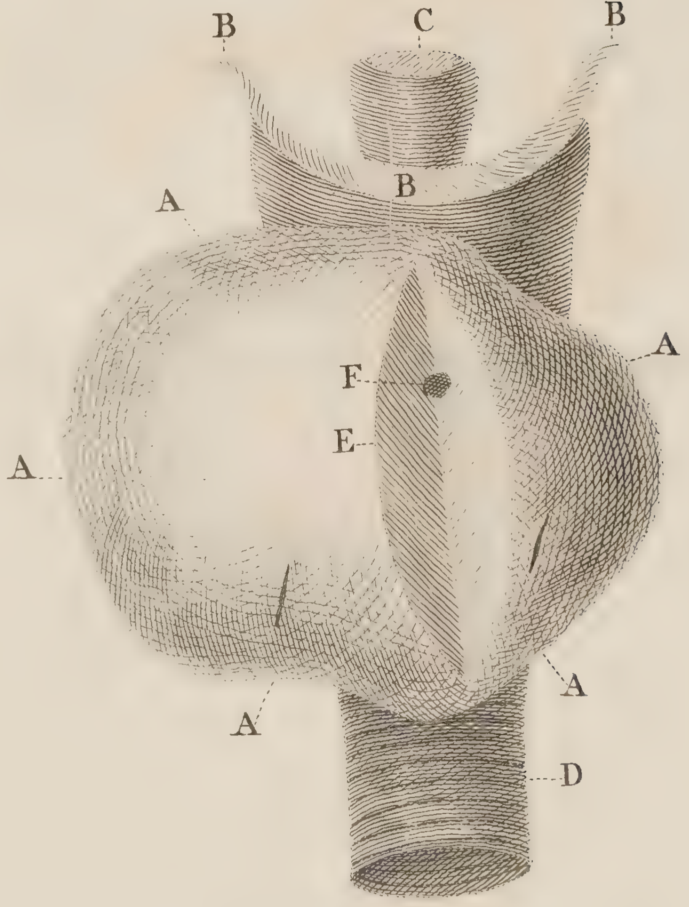

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PLATE 6. *Fig.* I.

A. The Tumor formed from the right ſide of the *Thyroid* Gland attached to the *Trachea*, &c.

B. Part of the *Thyroid* Gland ſhewn on the left ſide.

C. C. The *Thyroid* Cartilage.

D. D. D. The *Os Hyoides*.

E. The *Epiglottis*.

F. The *Trachea*.

FIG. II.

A. A. A. A. A. The appearance of the Tumor before the ſecond puncture. Theſe marks 1 1 denote the punctures through which the ſeton was drawn.

B. B. B. The *Os Hyoides*.

C. The *Epiglottis*.

D. The *Trachea*.

E. The inciſion made into the Tumor after the death of the Patient.

F. The eroded hole opening above the firſt ring into the *Trachea*, diſcovered by making this inciſion.

Of

Of ſome diſorders in the *Œſophagus.*

M. A. a woman of a weak conſtitution near forty years of age, had long been afflicted with a great difficulty in ſwallowing her food; and at length, for ſome years before ſhe died, was under the neceſſity of uſing a whale bone, with a ſmall button at the end, to propel it beyond the obſtructed part. I cou'd feel with my finger in this canal, the top of the tumor, which was the impediment to deglutition.

About a week before her death, an inflammatory diſorder increaſed the old complaint, and notwithſtanding all poſſible means to relieve her, the *Œſophagus* was ſoon ſo contracted, that ſhe cou'd neither ſwallow liquids, nor bear to have any ſolid food forced down, in the uſual manner, on account of the extreme tenderneſs of the parts; conſequently was ſtarved to death.

In diſſecting and examining the parts, I found the membrane that lines the *Œſophagus*, which had been in an inflammatory ſtate, uniformly much thickened, between two and three inches in length, beginning to grow into that condition, juſt where the *pharynx* contracts to form that canal; in the middle of which ſpace, the tumor, about the ſize of a very large nutmeg, was ſituated, that I felt with my finger in her life time. When the *Œſophagus* was ſtimulated to contract by any means in the act of deglutition, the ſides of it were brought into contact with the tumor, totally excluding the paſſage even of any kind of liquid.

Two of them were of ſcrophulous habits.

I have ſeen five other women, of different ages and conſtitutions who had ſwellings in theſe parts, within reach of the finger; all of whom, ſooner or later, ended their lives in this miſerable manner; but I never had an opportunity of examining the parts after death, only in this caſe.—It is not at all improbable, that the ſame dreadful conſequences may proceed from an extraordinary thickening of the internal membrane of the *Œſophagus*, without any diſtinct tumor in the paſſage.—I was lately deſired, with a Phyſician and two other Surgeons to attend the opening of this part, on account of a difficulty of ſwallowing, which killed the patient, ſome time after ſhe had been cured of a common inflammatory *angina.*—In this caſe we cou'd not diſcover, by the moſt accurate inſpection, any evident cauſe of this fatal obſtruction. We then went to ſpeculation, which indeed affords but a faint light in diſcovering the cauſe of diſeaſes, and ſuppoſed the parts muſt have been in ſo irritable a ſtate, as to be thrown into ſpaſmodic contractions, whenever ſhe attempted to ſwallow any kind of food.—I have alſo ſeen two men and one woman, advanced in years, who lived, and died, in a ſtill more deplorable condition, by a diſorder in this canal. I had an opportunity of opening one of them, where I found a cancerous excreſcence and ulceration, near the entrance of the *Œſophagus* into the ſtomach; and from the ſimilarity of ſymptoms, as ſhooting pains, ſickneſs, offenſive taſte in the mouth, beſides the obſtruction to the paſſage of the food into the ſtomach, I had good reaſon to think the other two were of the ſame nature. At laſt their agonies were beyond expreſſion, when the aliment came at the obſtructed part, moſt of which was then thrown up. And lately a poor man applied to me, in great diſtreſs, who I apprehend, from his complaints, has ſome ſuch diſorder about the middle of the *Œſophagus.*

A great number of large ſtrumous glands ſituated in the *Axilla*, and underneath the pectoral muſcle, ſucceſsfully extirpated; and an *Ophthalmy* of that nature cured in the ſame patient.

November the 8*th*, 1750.

THE wife of *H. L.* of *T.* twenty five years of age, firſt perceived a ſmall, indolent moveable tumor in the right *Axilla*, between five and ſix years ago, which grew gradually in two years to the ſize of a turkey's egg; another appeared then immediately beneath the clavicle, and in ſix months acquired the bigneſs of a large walnut. Theſe tumours increaſed by little and little, and more glands became obſtructed and ſwelled. About five months after, inflammations ſeized both her eyes, ſoon depriving her totally of the ſight of one of them, and with the other ſhe was ſcarce able to guide herſelf.

Her parents were healthy, and before the appearance of the tumor in the *Axilla*, ſhe had a good ſtate of health, but after that, was grievouſly afflicted with pain in her ſtomach and heat in her bowels, accompanied with an obſtinate coſtiveneſs; for which ſhe found but little relief, from a great variety of medicines, preſcribed by a very judicious practitioner.

In this moſt deplorable condition ſhe fell under my care, with the *Axilla* full of diſtempered glands, beginning to have a cancerous appearance: and a chain of them was continued from thence, extending to the pectoral muſcle and neck, and daily increaſing.

After deliberately conſidering the caſe, I thought nothing cou'd be done to any purpoſe, unleſs the diſeaſed glands cou'd be entirely extirpated; and a conſultation was conſequently held as ſoon as poſſible, conſiſting of a Phyſician and four Surgeons of eminence, who readily concurred in my opinion; but all of us were apprehenſive, that ſhou'd theſe glands be removed, even then, it was very doubtful what wou'd be the event of the operation; for, if the diſeaſe happened to be ſtopped here, the ſame cauſe ſtill exiſting, probably wou'd produce the ſame effect, in ſome other part internal or external, and fruſtrate our endeavours.

These indeed were very diſcouraging circumſtances; but the patient, after having heard what paſſed in our conſultation, as we thought it right ſhe ſhou'd be informed of the danger, in order to chuſe for herſelf, ſaid, with great courage and reſolution, ſhe wou'd ſubmit to the operation, deſiring to have it done whenever it ſhou'd be thought proper.

A week after, ſhe being duly prepared for the operation, I performed it, in the preſence of thoſe gentlemen, beginning in the *Axilla*, whence I diſſected all the glands, opening but one blood-veſſel of any conſequence, which I eaſily commanded with the needle and ligature, though it laid deep in the *Axilla*; I then filled the wound with ſoft, dry lint, and engaged one of my aſſiſtants to ſupport a compreſs upon it with his hand. Having proceeded thus far, we found it expedient to refreſh our patient's ſpirits with a little wine, and allow her a ſhort reſpite; after which, ſhe readily conſenting to my going on, I made an inciſion from the ſuperior part of the other glands, in a curved line, to the angle of the *Axilla*, where I left off, intending to meet it at the ſame point with another, in order to remove an oval piece of the teguments, together with the affected glands; but inſtead of laying them bare, as we expected, only the *Pectoral* muſcle came in view, which circumſtance made us heſitate a moment: however, having proceeded thus far, it was unanimouſly agreed to go on; and upon this determination, I divided the muſcle, which appeared much thinner than ordinary, in an oblique direction, as far as was thought neceſſary; and the glands, being pretty much diſengaged from the ſubjacent parts, were removed without any difficulty, or effuſion of blood worth regarding. Thus ended very happily one of the moſt tedious and dangerous operations any of us had ever ſeen. There are few difficulties that occur in operations, but what we may be able to ſurmount, if we can preſerve a calmneſs and preſence of mind to direct our judgment and hand.

The number of glands taken out of the *Axilla* was nineteen, of various ſizes; ſome were like large potatoes, others no bigger than filberts; and eight were ſituated under the pectoral muſcle, which differed alſo in their ſize.

After dreſſing the wound with dry lint and digeſtive, in the common manner, I applied ſoft compreſſes of cloth ſpread thick with *Unguent e Floribus Sambuci*, and the roller no ſtraiter than juſt to confine the dreſſings. After every conſiderable operation, we ſhou'd give our utmoſt attention to the application of the compreſſes and bandage, that they may fit, and be left as eaſy as poſſible upon the tender parts, as long continued pain may have deſtructive conſequences. From this conſideration, a little warm *Ol. Olivar. optim.* ſhou'd now and then be poured in, after gently raiſing the compreſſes and bandage in convenient places, that tenſion and inflammation may be prevented as much as we can.

THE ſymptoms in conſequence of the operation were very favourable, the wound digeſted kindly, and was perfectly cicatrized in eight weeks. When ſhe was in a condition to bear alteratives, I had recourſe to them, particularly to ſmall doſes of *Merc. dulcis*. Within about three months, ſhe recovered the perfect ſight of one eye, and the inflammation did not continue upon the other; but the *Cornea* was too much thickened, to tranſmit the viſual rays. When the wound was near healed, I firſt put a ſeton into her neck, and afterwards made ſuper-ſcapulary fontanels, which were kept open about two years. For a long time after the wound was perfectly cicatrized, ſhe drank ſea-water, and took an alterative medicine compoſed of *Æthiop. Min.* & *Antimon. crud.*

HER happy deliverance from this impending danger, and the enjoyment of good health ever ſince, have amply rewarded her for her uncommon fortitude, and me for my care of her ; ſhe being an object of charity, and ſupported at her own houſe during the cure, by the Gentleman to whom I have dedicated theſe papers, whoſe great delight is in doing good.

Another caſe of a ſimilar nature to the preceding.

IN the year 1760, a gentleman's coachman upwards of thirty years of age, and of an athletic habit, without any determinate evidence of an hereditary diſorder, had a greater number of diſeaſed glands, of a larger ſize and worſe aſpect, upon his neck, than appeared in the preceding caſe; and they were deeply ſituated between the muſcles, extending from his ear to his ſhoulder, ſome lying under the *maſtoid* muſcle and others under the *clavicle*, without the leaſt tendency to ſuppuration in any of them. This tumor began upon the *parotid* gland, and, in the ſpace of between two and three years, increaſed to an enormous ſize; and even at firſt wou'd not yield, in the leaſt, to proper methods, under the direction of a judicious Surgeon. Upon this occaſion, his health in general was ſoon much impaired; and he had been, for a conſiderable time, conſtantly affected with feveriſh complaints more or leſs. He grew daily worſe in all reſpects, and his life was now apparently in the moſt imminent danger: from theſe prevalent conſiderations, in conſequence of a conſultation, conſiſting of two Phyſicians and three Surgeons, I was induced to undertake the extirpation of theſe glands, by inciſion, though with great reluctance; foreſeeing the difficulty and danger of the operation, from their deep ſituation, between the muſcles, near ſuch large veſſels as lie there, and under the *clavicle*.

AFTER having paid all due attention to the patient's bad ſtate of health, and put him into as good a condition, with the advice of the Phyſicians, as the nature of the caſe wou'd allow, in order to make the operation ſucceed the better, it was performed in the preſence of all thoſe gentlemen, who had been in conſultation, they having without heſitation unanimouſly agreed with me, that no other means carried the leaſt poſſibility of anſwering any good purpoſe: indeed there ſeemed to us no alternative, but to give him a chance by this precarious operation, or ſuffer him to die a miſerable, lingering death inevitably.

As it was neceſſary, to give ſucceſs to the operation, that all the diſtempered glands ſhou'd be removed, there was not leſs trouble and perplexity in the performance of it, than was feared. It demanded a very cautious procedure to ſeparate the glands, partly by the fingers and thumb, then cutting by their direction, with the aſſiſtance of my brethren, in order to avoid wounding the large ſubjacent veſſels, particularly the *carotid* and *ſubclavian* arteries, to which ſome of theſe glandular bodies laid almoſt contiguous; and indeed many of them were ſo intimately entangled with conſiderable branches, that though, by our great care in this point of the utmoſt conſequence, we did not injure the trunks, yet the effuſion of blood was much greater than in the former caſe, as well as the operation more tedious. The cure of the wound alſo proved more difficult, which was retarded by the exceſs of fever, accompanied with miliary eruptions to a great degree, and of long duration: however, in five or ſix months he was able to exerciſe his former employment; but about a year after, he was taken ill with an epidemic fever of a dangerous kind, which, in all probability, was aggravated by his own indiſcretion, in taking a long journey in a cold day, ſoon after he was ſeized with it; and then, notwithſtanding all poſſible care, it quickly carried him off, as I was informed by the perſon who attended him in that illneſs.

Of a tumor upon the neck, in conſequence of which, in length of time, the *Œſophagus* was eroded.

IN the year 1763, a Surgeon at ſome diſtance from *Norwich*, then the place of my reſidence, deſired me to viſit a patient with him about ſixty years of age, lately fallen under his care in a very deplorable ſtate, with a tumor of a depreſſed oval figure, ſituated between the *maſtoid* and *coracohyoid* muſcles. It had been viſible more than a year, gradually growing to the ſize of a hen's egg, and probably had begun upon, or very near the *Œſophagus*.——The tumor, and all that ſide of his neck, extending to his head, was attended with violent pain; he had long found great difficulty in deglutition, cou'd now ſwallow no ſolid food, and was ſenſible of a ſmall quantity of very offenſive matter, frequently coming into his mouth, from his throat.

Upon a ſtrict examination of the tumor, I was very ſenſible of a fluctuation of ſome fluid in it; and after well weighing and conſidering every circumſtance, I ſtrongly ſuſpected there was a communication between it and the *Œſophagus.* I propoſed the opening of it to my Brother, who was a young man, unexperienced and timid; he diſcovered fears on that account, and deſired me to open it; I readily complied with his requeſt, not having the leaſt doubt upon my mind, as to the propriety of ſuch a ſtep: I made a moderate opening, at which was diſcharged a tea-cup of ichorous matter exceedingly fetid; and upon introducing a probe, it paſſed into the *Œſophagus,* without any interruption, fully confirming our opinion.

The matter was of ſuch a corroſive nature, that it immediately turned the probe of a copper color. The dreſſings afterwards were ſuperficial, in the common manner, after injecting a little warm *ſamaritan balſam* with an ivory ſyringe. By opening the tumor, and this gentle treatment, the patient's pains were greatly mitigated, he ſwallowed ſoft food with eaſe, and his life was rendered, though not comfortable, much more tolerable; but his conſtitution was ſo much impaired, that notwithſtanding all poſſible care, as drinking aſs's milk, &c. he languiſhed and died tabid about a year after.

A POOR man about the ſame age, and in a declining ſtate alſo, lately aſked my advice, in a caſe ſimilar to this, which I repreſented, at his requeſt, to the Surgeon he intended to employ; giving an account of the preceding, in order to engage his attention the more; but leaving *Norwich* ſoon after, I did not hear the event.

A cancerous breaſt of an enormous ſize extirpated, and the wound healed.

September the 11th, 1755.

IN a conſultation held on the caſe of Mrs. D. of P. a woman remarkably corpulent, yet very active and temperate, it was unanimouſly agreed, that ſhe had no other chance for relief than by loſing her breaſt; which was about a yard in circumference, not yet fixed, but threatened immediate ulceration.

UNDER theſe diſcouraging circumſtances, we cou'd not urge the operation; but the week following, at her own deſire, I performed it, Mr. *Layman* of *Diſs*, an eminent Surgeon, and the Surgeon whoſe patient ſhe had long been, aſſiſting me. The operation did not prove tedious, conſidering the magnitude of the breaſt, nor did any thing material occur in it.

THE ſkin of the whole breaſt was affected to ſuch a degree, that we durſt not attempt to preſerve ſo much of it as we wou'd willingly have done; and the *membrana adipoſa* was near five inches thick towards the *Axilla*.

WE examined the principal diſtempered gland, ſuſpended in a bloody fluid, which alſo appeared of a lymphatic nature, by inſpiſſating with a moderate degree of heat. The cyſt which contained the fluid, was formed of the *capſula* of the gland, the gland itſelf remaining in a *ſcirrhous* ſtate; out of which an excreſcence was grown, reſembling the head of a colly-flower, as repreſented in Pl. 7. Upon cutting into the body of the gland, which was like the gizzard of a turkey, we obſerved ſome veſſels varicous, others ruptured, and many coagula of blood, ſuch, we ſuppoſe, as the Ancients called *Atra Bilis*, and looked upon to be the efficient cauſe of Cancers.

THE wound healed very kindly, without any bad accident ſupervening, and was perfectly cicatrized in little more than three months, by the great care of the Surgeon whoſe patient ſhe had been before; and ſhe enjoyed good health for about a year after.

December the 28th, 1756, I was again deſired to meet her Surgeon in ordinary, on account of an indolent tumor which extended uniformly over the whole *ſcapula* on the other ſide, and meaſured three feet and eight inches in circumference, without the breaſt, or glands in the *Axilla*, being the leaſt affected; yet I looked upon it as an appearance of the old leaven, and therefore adviſed no application, only to have it well ſupported, and that all poſſible care ſhou'd be taken to prevent its breaking; plainly foreſeeing, that under ſuch a circumſtance, her caſe wou'd be ſtill more deplorable.

Before her death, which happened on *April* the 2d, 1757, the tumor was much increaſed; ſhe lived but a ſhort time after it broke, and that in the utmoſt miſery, without any eaſe, but what was procured by opiates: the diſcharge was immenſely great, and the matter not only exceſſively offenſive in ſmell, but the effluvia proceeding from it were ſo virulent, as to affect thoſe who conſtantly attended her. One of the perſons who bore her to the grave told me, that the ſtench made him very ſick, and that he was immediately after ſeized with a flux, which ſoon relieved him, and carried off this caſual diſorder.

THE cicatrice where the breaſt was extirpated, continued perfectly ſmooth and well, to the time of her death, without the leaſt appearance of the diſeaſe upon the circumjacent parts.

Many years ago Mr. *Layman* of *Diſs* and I were preſent, when Mr. *Amyas* late of *Norwich* extirpated a cancerous breaſt, in which we found a conſiderable quantity of gravel, and ſome ſmall ſtones in the middle of the glands.

PLATE 7.

The repreſentation of the cancerous gland.

A. A. A. A. The common teguments.

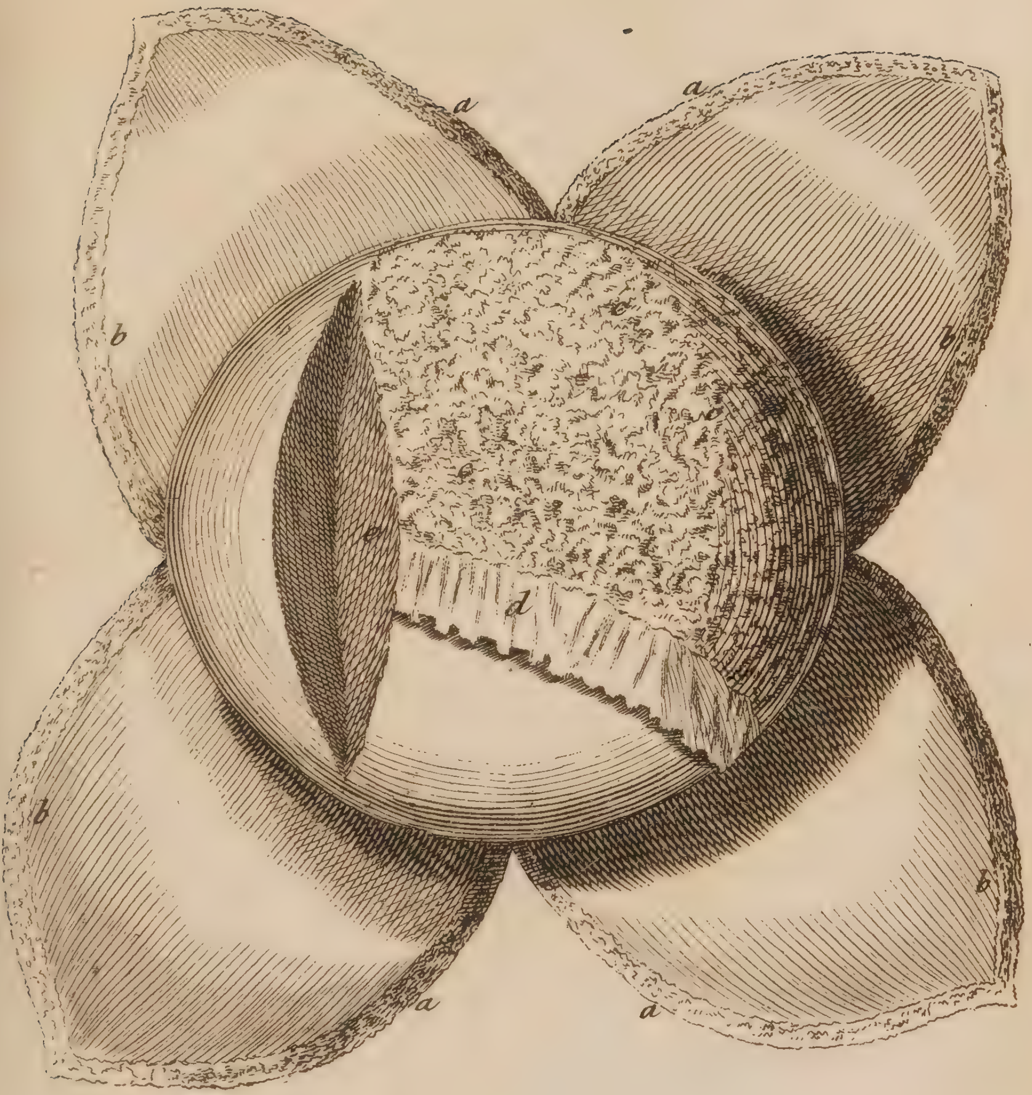
B. B. B. B. The *Capſula* of the Gland which formed the cyſt, containing the bloody fluid.

C. C. C. The colly-flower-like excreſcence which ſprouted from the body of the gland.

D. The *Fimbria* which laid looſe upon the gland, but was attached to the excreſcence.

E. The inciſion into the body of the gland, which diſcovered the varicous and ruptured veſſels, and the coagula of blood.

Pl. 7.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A cancerous diſeaſe, which aroſe from drinking ſome liquor impregnated with the matter that iſſued from an ulcerated cancer.

IN the year 1752, I was deſired to viſit a perſon of great virtue and veracity in the City of *Norwich*, near ſixty years of age, who had a cancerous tumor upon her breaſt, with the glands in the *Axilla* much affected, cauſing a large *œdematous* ſwelling of the whole arm quite to the fingers ends, attended with great pain.

THE account ſhe gave me of her very ſingular caſe, confirmed by her relations, was as followeth. That her parents were healthy, and that when ſhe was a child about three years old, ſhe went with her mother to viſit a friend, who had an ulcerated cancer upon her breaſt, which had juſt been dreſſed; and ſome of the liquor, with which it had been waſhed, ſtanding in a tea-cup upon the table, ſhe drank a little of it. In conſequence of this unfortunate accident, an eating ulcer ſeized her tongue, and one ſide of her mouth, about a fortnight after; making diſmal ravage of the cheek, on the outſide as well as on the inſide. On this account, ſhe was put under the care of a Surgeon of great character in *London*, who found much difficulty in ſtopping the progreſs of the diſeaſe here. More than twenty years after, the leaven ſhewed itſelf upon her thigh, where ſhe had received a contuſion by a fall, ſome years before; and an abſceſs was now formed near the bone towards the articulation of the hip, which was alſo cured with the utmoſt difficulty, by a very able Surgeon at *Norwich*. She enjoyed a tolerable good ſtate of health after this, for about fifteen years, and then diſcovered a ſmall ſcirrhous knot in her breaſt, indolent and moveable, increaſing but ſlowly till the time of the ceſſation of the menſtrual diſcharge, when it began to increaſe very conſiderably: in a few years it poſſeſſed the whole breaſt, and at laſt the glands in the *Axilla* likewiſe. The tumor remained in an occult ſtate as long as ſhe lived; but ſome months before her death, her arm became affected as has been deſcribed.

Monſ. *Dionis* ſays, that out of twenty women who had cancers in their breaſts, he obſerved fifteen of them were ſeized with the diſeaſe at between 45 and 50 years of age, the time when nature generally ſuffers a conſiderable change from a ceſſation or diminution of the menſtrual evacuation: and he alſo ſays that he ſaw many women in the monaſteries afflicted with cancers, who were about that age, in a tour he made through the provinces in *France*.

A caſe in which an immenſe quantity of bloody lymph was contained in the breaſt of a woman about 40 years of age; and all the glands in a very putrid ſtate.

TWO years ago I was in conſultation with a Phyſician and a Surgeon in this caſe, which much reſembled thoſe collections of bloody lymph mentioned by the celebrated Profeſſor *Monro* in vol. 5 of the Med. Eſſays, and in which we had no ſucceſs. It was a dreadful caſe indeed, and the patient lived ſeveral days in the utmoſt diſtreſs, with an invincible locked-jaw. This convulſion, thus denominated by the moderns, did not paſs unobſerved by the immortal *Hippocrates*, as appears in the ſeventh book of his Epidemics; but he knew no cure for it: that important diſcovery was reſerved for the preſent age; and we have ſome inſtances of cures having been performed, in the *London* Med. Obſervations and Inquiries, by the liberal uſe of that divine remedy, *Opium*, as I have before mentioned.

REFLECTIONS and REMARKS relative to the extirpation of cancerous breaſts, &c. by inciſion,

FROM the ſucceſs I have obſerved to attend this operation, in patients of others as well as my own, in a ſufficient number of inſtances, I think too much diſcouragement has been given to it. In order to have it ſucceed the better, the utmoſt attention ſhou'd be paid to the eradication of every diſeaſed glandular ſubſtance that can poſſibly be diſcovered, be it ever ſo ſmall, and not leave any in the *Axilla*: And when the operation ſhall be thought adviſable, after being deliberately conſidered in conſultation, even where there is ſome adheſion of the tumor to the *pectoral* muſcle, it is certainly right to diſſect off a conſiderable portion of that along with it; and I have ſeen good conſequences from ſuch practice.

A NOBLE Lady of tranſcendent virtues and unexampled fortitude, for whom I had the honour of performing this operation more than ſix years ago, has enjoyed a perfect good ſtate of health ever ſince, which her Ladyſhip has, from time to time, given me the great pleaſure and ſatisfaction of knowing, in a manner that adds to her dignity and my obligations.——In her caſe, the glands in *Axilla*, and the whole breaſt, had long been much affected: yet the wound not only healed ſpeedily and kindly, but the cicatrice never broke in the leaſt degree after it was firſt cloſed; nor has there been any kind of appearance of the diſeaſe upon that or any other part ſince, though various reports to the contrary, and even very lately, have been ſpread by buſy people too ready at invention.

ABOUT three years ago I was called into conſultation with a Phyſician and a Surgeon, for a Gentlewoman upwards of forty years of age, concerning a cancerous diſorder of many years ſtanding, which extended over great part of the *deltoid* muſcle. It was now grown much worſe, and evidently affected her health in general; probably owing to abſorption of putrid matter.

Though this tumor, which had always been flat, and had long been ulcerated, had a true *carcinomatous* appearance, and was ſtrongly attached to the ſubjacent muſcle, yet, conſidering all circumſtances, and that no method had procured relief of any conſequenee, we unanimouſly propoſed the extirpation of it; taking in an inch of the ſound ſkin, and a conſiderable thickneſs of the muſcular ſubſtance itſelf, in diſſecting it off. The operation ſucceeded happily; the cicatrice ſtands perfectly well, ſhe can elevate her arm, and uſe it in all directions, without any impediment; enjoying a much better ſtate of health than ſhe had done for many years.——During the cure of the wound by the common treatment, alterative remedies of the uſual kind were preſcribed, and an exact regimen of diet obſerved; and when it was nearly healed, ſuperſcapulary fontanels were adviſed; more particularly on account of ſome great complaints ſhe had been ſubject to a long while, both in her ſtomach and bowels.

See diſſertations upon cancers, in the Mem. de l'Acad. Roy. de Chirurg. Tom. 1 and 3: And in the prize Mem. of that Society upon the ſame ſubject.

There has been a medicine of a cauſtic nature, ſome years in great vogue in this Kingdom for the extirpation of cancers, the baſis of which is ſuppoſed to be *Arſenic*, qualified to render it more gentle in its operation; but notwithſtanding that qualification, it is well known to act with a greater or leſſer degree of pain as other cauſtics do, according to the local, or conſtitutional ſenſibility of the patient.——All things deliberately conſidered, it appears highly probable, the preference will ſtill be given to the judicious uſe of the knife in extirpating cancers. This matter Mr. *Gataker* has ſet in a proper light, in his introduction to his Eſſays on medical ſubjects.——Alſo ſee what Mr. *Beckett*, who was Surgeon to St. *Thomas's* Hoſpital, ſays upon this ſubject in his chirurgical tracts, concerning the uſe of applications to cancers which have *Arſenic* in their compoſition. He concludes by diſcouraging their uſe, after having well attended to their effects.

An abſceſs in the *Pleura* opened and cured.

MR. R. N. of M. about forty-five years of age, who had, by great intemperance, injured a good conſtitution, was ſeized with a pleuriſy in the beginning of *September* 1755; on which account he was blooded, and treated as regularly, as an untractable patient wou'd permit; but all to little purpoſe. Reſpiration became extremely difficult, attended with a violent cough and continual fever. He grew daily worſe in all reſpects, and his life appeared to be in the moſt imminent danger; yet, not being truly ſenſible of his condition, when urged by his friends to do what was proper, he rejected their perſuaſions, and ſhewed an invincible obſtinacy; but at length his breathing becoming ſo difficult as to threaten immediate ſuffocation, I was called to him in great haſte, *October* the 25th.

Besides theſe ſymptoms, I found him greatly emaciated. After ſtrict inquiry, and obtaining all the information I cou'd from himſelf, and thoſe who attended him, I carefully examined the affected ſide, and, comparing it with the other, it appeared rather thicker, eſpecially where he complained of a fixed pain, which was between the fifth and ſixth rib, about the middle of the ſpace from the *ſternum* to the *ſpine*; upon which part I underſtood he had formerly received a blow, though he had no complaint in conſequence of that accident, worth taking notice of, till he was attacked with this pleuretic diſeaſe.

AFTER having conſidered all theſe circumſtances, I was inclined to think an abſceſs was formed in the *pleura*, and that the matter wou'd ſoon make its way into the cavity of the *thorax*, if it had not already done ſo; which conſideration determined me to propoſe the operation directed in the *Empyema*, without delay, as the only means of relieving him. He was very much averſe to this; but by reaſoning with him, and ſhewing the improbability of affording him relief in any other manner, joined to the earneſt intreaty of his relations and friends, he did at laſt comply with what I propoſed.

THE operation was then forthwith performed, directly upon the part where he complained of pain, and a large quantity of fetid matter was evacuated. The next day, in order to keep the aperture open, for a free diſcharge of the matter, in the intervals of dreſſing, I introduced a flat hollow tent, dipped into *Belloſte's* compound *Samaritan Balſam*; applying over it a piece of common plaſter, having a hole in the middle correſponding to the mouth of the tent, with a ſoft compreſs, a laced flannel bandage and ſcapulary. The tent was made of a leaden canula, covered with a piece of plaſter, with ears of a ſufficient length and breadth to reſt ſteadily upon the rib above and below, confined to the part with ſtrips of plaſter. This method of dreſſing I have often found anſwer the purpoſe perfectly well in ſuch caſes.

UPON the evacuation of the matter, he was immediately relieved, the pain and cough ceaſed, he breathed freely in every poſition of his body, in a ſhort time the fever left him, and he recovered a good appetite. The diſcharge was very large for about ten days, then became moderate: when the matter was grown well conditioned, and the quantity of it much leſſened, I left out the tent, and carefully touched the circumference of the wound with *Lap. infernalis*, dreſſing for the future ſuperficially; and in about ſix weeks it was perfectly healed. During the cure, aſs's milk, balſamics, &c. as uſual in ſuch caſes, were preſcribed, and he ſoon recovered as good a ſtate of health, as in the former part of his life.

When we have reaſon to ſuſpect that an abſceſs may be forming in the *pleura*, we cannot be too watchful, as it is of the utmoſt conſequence to diſcover and open it before it burſts and diſcharges the matter into the cavity of the *Thorax*. What Mr. *Sharp* in his Critical Inquiry, and Monſ. *Le Dran* in his Operations and Obſervations in Surgery, have written upon this ſubject, with the different kinds of *Empyema* and *Abſceſſes* in the *Thorax*, deſerve to be read with the greateſt attention. *Bonetus* in his *Anatomia practica* has alſo a collection of caſes to the ſame purpoſe, well worth reading.

A hiſtory of a caſe, and what appeared upon opening the body of a robuſt man aged 45.

Feb. 24th, 1761.

EIGHT years before his death, he was kicked by a horſe, upon the lower part of the *Thorax*, towards the right ſide. He immediately diſcharged much blood at the mouth, complained of violent pain, and his life was thought to be in imminent danger: however, by proper treatment, he was relieved, but was never after free from complaint, at times, upon the injured parts; and, for the laſt three or four years, of his life, every three weeks or month, or oftner, he uſed to throw up, or pump up as he expreſſed himſelf, a conſiderable quantity of purulent matter, which was thought, though with no good reaſon, to proceed from his ſtomach; and then grow ſo eaſy and well as to follow his ordinary employment again. About three weeks before he died, he was ſeized with a violent pain of his ſide, attended with great difficulty in reſpiration, which was conſidered, and treated as a common pleuretic diſorder, but without any relief; nor did he caſt up any purulent matter, in the uſual manner, as I was informed, for I never ſaw him whilſt living; but received this account from a very intelligent perſon, who was perfectly well acquainted with every circumſtance of his diſeaſe, from the beginning.

I WAS deſired, with two other Surgeons, to open the body, in the preſence of the Phyſician, who had attended the patient in his dying illneſs. Upon diſſection, and a very accurate examination of the *thorax* and *abdomen*, both which cavities were brought in view at the ſame time, we found all their viſcera ſound, except the lungs, on the ſide where the original hurt was received, the inveſting membrane of which had a very ſtrong adheſion to the *pleura*: and in the right lobe of that organ, there was a great collection of purulent matter; the depending part of which cavity, where the matter was contained, was between the ſixth and ſeventh ribs, counting from above. This was a very favourable place for the operation of the *Empyema*; and that might have prolonged the patient's life, if it had not cured him: but the true nature of the diſeaſe had not been diſcovered, conſequently that was omitted. The matter was forcing its own way externally, and had penetrated the internal intercoſtal muſcle between thoſe ribs, and made them carious. This large cavity containing the matter, extended into the right lobe of the lungs, about half its breadth and length obliquely upwards; whence the matter, by *ſinuſes* formed in the air-veſſels, was carried into the *Bronchia*, then to the *Trachea*, and ſo evacuated by the mouth, when the cavity was full: and when he was about pumping it up, as he called it, he uſed to throw himſelf upon the oppoſite ſide, or put his head between his knees; in which poſtures it wou'd ſometimes run out ſpontaneouſly, without any force, more than the natural action of the lungs and diaphragm, to expel it.——It is alſo farther remarkable in this caſe, that the patient was fat and full of fleſh, without ever having had any ſymptoms of a waſting hectic, from the matter lying continually in the lungs for ſo many years.

Another caſe, in which the nature of it was not fully diſcovered, till the body was opened after death.

IN *January* 1765, I was deſired, with a Phyſician and two Surgeons, to viſit a poor girl about twenty years of age, who had a tumor, of many months duration, upon her loins; at which part two of the *vertebræ* projected conſiderably. The ſummer preceding, ſhe had pulmonic complaints; whence it was apprehended, that the matter, evident in this tumor, might be originally formed in the lungs, or ſome other part in the thoracic cavity, and have gradually deſcended, though we cou'd not be well informed, whether there had been any ſigns of an *Empyema* immediately in conſequence of the pulmonic diſorder: but what ſtrengthened the conjecture, was my having obſerved three or four caſes, in which the matter was originally collected in the cavity of the *Thorax*, and ſhewed itſelf in the lumbar region.

Some time after opening the tumor, which contained a very ill-conditioned, acrimonious matter, ſhe alſo expectorated a putrid *ſanies*, which circumſtance confirmed our opinion. In this miſerable condition ſhe lingered many months; and what ſtill added to her diſtreſs, about two months before ſhe died, her lower extremities became paralytic, from the *ſpinal* marrow being affected.

Upon opening the body, we found more than a common adheſion of the lungs to the *pleura*; they were in a manner grown into one ſubſtance, not to be ſeparated without tearing the parts. Here the ſource of the diſeaſe appeared, communicating with the tumor that was opened upon the loins. All the intermediate *vertebræ*, from the fourth of the back to the third of the loins, were more or leſs carious; and the ribs at their junction with the *vertebræ*, and under the adheſion of the lungs and *pleura*, were affected in the like manner.

An

An incyſted tumor ſituated between the muſcles of the *Abdomen* and the *Peritonæum*.

MR. C. M. a man of more than ordinary bodily vigour and muſcular ſtrength, aged about thirty-five, received ſome blows upon the *Abdomen* in a boxing match, which were not attended with any worſe conſequences than ſlight tranſient pains, for the ſpace of four or five years; after which period, a circumſcribed tumor appeared three or four inches round the navel, accompanied with a conſtant obtuſe pain. In this ſtate it remained ſeveral years, making but a ſlow progreſs; and the *Diagnoſtics* were ſo obſcure, that thoſe whoſe advice he took, were very dubious concerning the nature of his diſeaſe.

About ten years were elapſed ſince the accident, when he came to aſk my opinion, *October* the 12th, 1741. After conſidering the detail he gave me of his caſe from the beginning, and ſtrictly examining the tumor,

mor, which was increaſed in the laſt ſix months to a great ſize, extending moſt towards the *inguen*, I was inclined to think it of the lymphatic and incyſted kind. His health had long been greatly impaired, the tumor was prominent and much inflamed at the navel, the matter ſeemed to have made its way through the cyſt, and juſt ready to break through the ſkin.

I ATTENDED him as ſoon as he returned home, and upon attempting to riſe from his ſeat when I entered the room, the ſkin broke, and a large quantity of a brown, lymphatic fluid, flowed out at the navel. As the matter had made its own way, he wou'd not ſuffer me to make an opening at the bottom of the tumor, either by inciſion or cauſtic, as I propoſed and urged; nor yet to remove the thin teguments at the navel by knife or ſciſſars, in order to procure a more free and uninterrupted exit to the matter; but through much perſuaſion he did allow me to touch them with a piece of the pipe-form *Lap. infernalis.* Next day the aperture was plugged up with a ſtiff gelatinous ſubſtance, which I extracted with my forceps, and then, after puſhing back the cyſt, at leaſt three pints of the ſame kind of fluid guſhed out. The dreſſing was after the uſual manner, and when the *eſchar* fell off, I touched the parts again with the cauſtic, as much as an ungovernable patient wou'd allow; aiming to open, by this means, an ample paſſage for the cyſt. Thus I proceeded, and on *November* the 3d, when I removed the dreſſings, I found the cyſt, reſembling an inflated inteſtine, ſtrangled in the opening, ſtill too narrow to admit of an eaſy extraction; but with great care and trouble, I did extract it whole. It was in ſubſtance about the thickneſs of the large inteſtines, very putrid, and had a cadaverous ſmell exceſſively offenſive. A few days after, I extracted another entire cyſt of a ſmaller ſize.

THERE was now an immoderate diſcharge of a fetid matter, highly acrimonious, which excoriated the ſkin, and turned ſilver in a minute's time like copper, as if put into a corroſive ſpirit. He had a cough, was hectical, and daily loſt fleſh and ſtrength; yet, as the cyſts were come away, this untractable, inconſiderate patient, thought he ſhou'd ſoon be cured, and all the arguments I cou'd uſe were not prevalent enough to convince him, that much ſtill depended upon making an opening at the bottom of the *ſinus*, which was very capacious. Under theſe circumſtances I was greatly embarraſſed, and dreading the worſt conſequences wou'd attend the conſtant abſorption of putrid matter into the blood, I inſiſted upon a conſultation, in hopes the reſult of it wou'd influence him to ſubmit to what appeared to me abſolutely neceſſary to be ſpeedily done.

A VERY eminent Phyſician and Surgeon in the City of *Norwich* were accordingly conſulted, and after examining the part, and conſidering the condition the patient was in, they both peremptorily told him, he muſt ſubmit to a depending opening being made, as I had propoſed, if he wou'd give himſelf a chance for his life. The thickneſs of the parts, I believe, was about two inches, through which an opening was agreed upon to be made by a cauſtic. I foreſaw the difficulty that wou'd attend effecting it, by the common manner of applying the cauſtic ; therefore, after moiſtening the ſkin with a few drops of warm water, I began with rubbing it gently with a piece of pipe-form *Lapis infernalis*; and having thus mortified the ſkin and *membrana adipoſa*, I divided the *Eſchar* immediately with a lancet, laying the muſcle in view, and thruſting the point of the lancet a little way into it ; I then took a pointed piece of the cauſtic-ſtone, and by turning and puſhing it with a moderate force, wrought into the bottom of the *ſinus*, as the probe directed, in leſs than half an hour: through this opening I drew a ſeton, dipped in *Belloſte's* compound *Samaritan Balſam*, and ſoon gained a free diſcharge of the matter at this depending place, immediately above the ring of the muſcle on the right ſide.

Within a week or ten days there was a viſible amendment in the patient's health, and the matter grew better conditioned. Soon after the *Eſchar* was digeſted off, I diſcontinued the ſeton, introducing a leaden canula in its ſtead, through which the matter paſſed uninterrupted, and ordered a flannel body piece to be laced on, with an eaſy compreſs ſtitched to it, to reſt upon the ſuperior part of the *ſinus*. When the matter appeared well conditioned, and in a ſmall quantity, I left out the canula and dreſſed ſuperficially, only with dry lint and a common plaſter. By this treatment, with a few internals and drinking aſs's milk, he was perfectly cured in about four months. He lived many years after, and often told me he enjoyed as good health as in the former part of his life, without finding any conſiderable diminution of his ſtrength. He died at laſt in conſequence of a mad frolick, by a fall from his horſe.

From what I have obſerved myſelf, in a variety of inſtances, I have reaſon to believe, the application of the *Lapis infernalis* in the manner I have deſcribed, will be found moſt eligible, as it acts much quicker, and the *Eſchar* can be made of the very dimenſions we chuſe. The cauſtic and oppoſite cauſtic, as it is called and recommended by Doctor *Barry*, in the 4th vol. of the *Edinburgh* Med. Eſſays, act very powerfully; which method was practiſed by *Wiſeman*, in deſtroying ſtrumous glands, and upon his authority I followed it, on various occaſions, long before Doctor *Barry's* recommendation of it.——See notes at the end of the chapter concerning applications neceſſary in the cure of wounds, in my treatiſe upon that ſubject.

Of a *Prolapſus Ani*, &c.

IN the year 1749, I was conſulted in this caſe by a Gentleman's wife, wherein the parts ſuſpending the *Anus*, had been ſo relaxed for a long time, that ſhe was not able to walk acroſs the room without its prolapſing. On this occaſion I thought of the ſteel machine repreſented in Pl. 8. which immediately anſwered the purpoſe ſo well, as to enable her to follow her family affairs with eaſe and comfort; it was not long before ſhe cou'd walk ſome miles, and ride on horſeback with it, without any conſiderable inconvenience.

She had been grievouſly afflicted with the bleeding piles almoſt all her life; at length, from one of them, that was increaſed to a large ſize, ſuch an *hæmorrhage* enſued, as brought her life into moſt imminent danger. Upon this account I was conſulted again in 1751, and was of opinion with her Phyſician and Surgeon in ordinary, that nothing cou'd be done with a proſpect of relief without taking it off; conſequently the operation was forthwith performed by exciſion, after paſſing a ligature about its baſis, as in extirpating a tonſil, which, in all probability, ſaved her life, as her ſolids were greatly relaxed, and her blood exceedingly impoveriſhed, by the long continuance of the bleeding, that had fruſtrated all other means which had been uſed.

SHE was of a coſtive habit, and whatever medicines were preſcribed to remedy that inconvenience ſoon loſt their effect. Sea-water was at laſt tried, which agreed with her; it anſwered the intention perfectly well, and does ſo to this day, in the ſame ſmall quantity as at firſt uſing it, though ſhe has drank it almoſt fifteen years.

As ſoon as ſhe cou'd bear the machine or truſs after the operation, ſhe wore it again, and now cannot go at all without it. Were it not for this aſſiſtance, in her own opinion, her life muſt have been extremely miſerable, cou'd it have been preſerved: and I have received accounts of ſeveral perſons having found great relief by a truſs of this kind, as well as the like advantages in patients of my own.

She wears the bow upon the upper part of her hips, the flat upright part under her ſtays up the *ſpine*, and fixes the band at the bottom of the *abdomen*. In this manner ſhe finds that it keeps well fixed upon the part; and that upon any occaſion, now ſhe is uſed to the management of it, ſhe can eaſily ſlip it aſide, and adjuſt it again. The dimenſions for her, who is of a common ſize, are 15 inches long, properly turned, and made rounding where it paſſes between the hips; the flat part of it, made a little tapering, is about two inches broad at the top; the pad is of an oval form, near an inch broad, well ſtuffed and prominent in the middle; the bow is 18 inches long and one broad, thin and very elaſtic, and ſo curved as to fit eaſy upon the parts; the band is 20 inches long; the whole of the machine is covered with ſoft oiled leather, and ſtuffed where neceſſary for the patient's eaſe. Great care is required in taking the meaſure, to have it well fitted to the parts, with an eaſy and regular bearing every where; and it ſhou'd be made of ſuch well tempered ſtuff, as the workmen term it, as will admit of bending and altering to adapt it properly. The beſt way of meaſuring

Pl. 8.

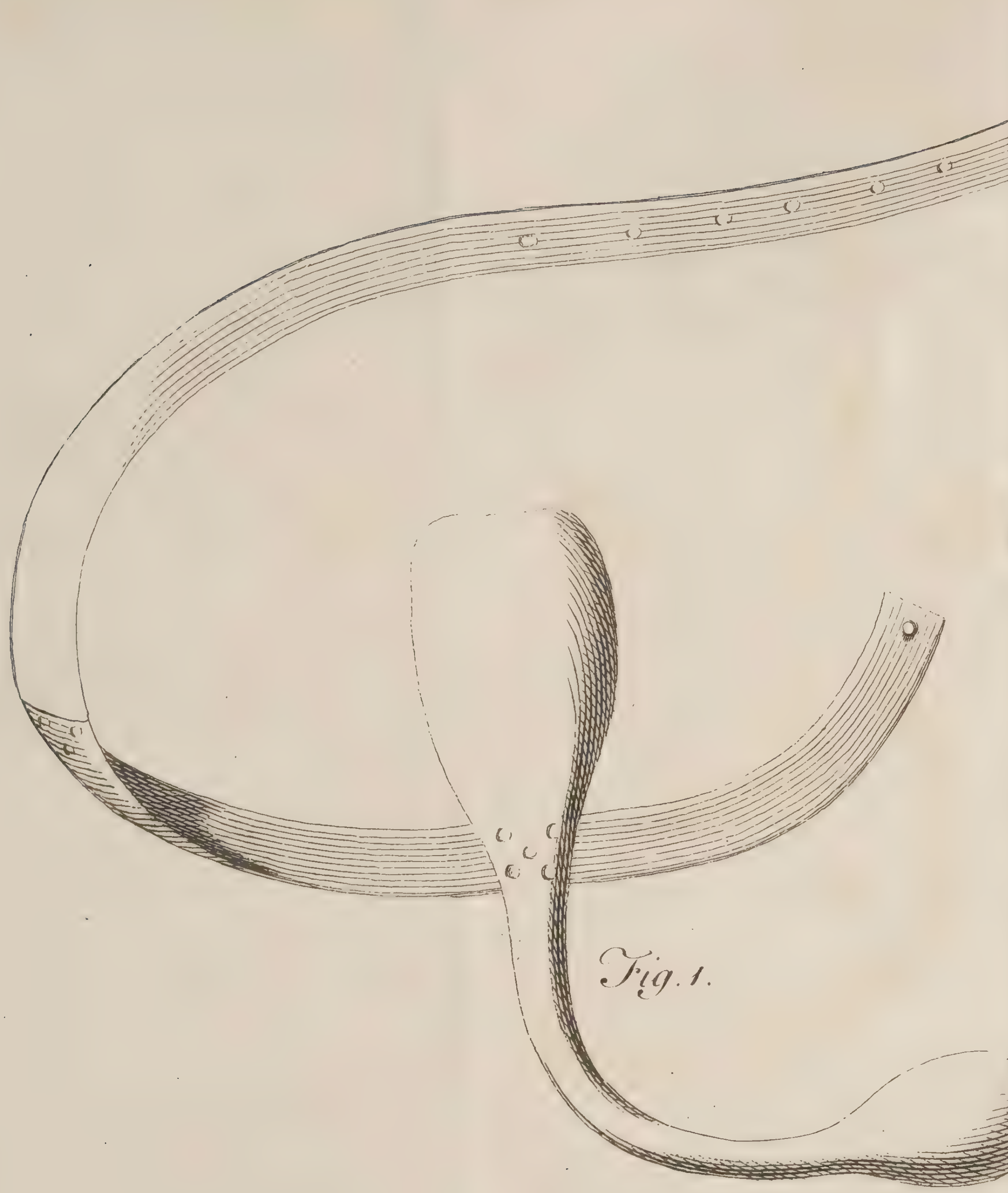

Fig. 1.

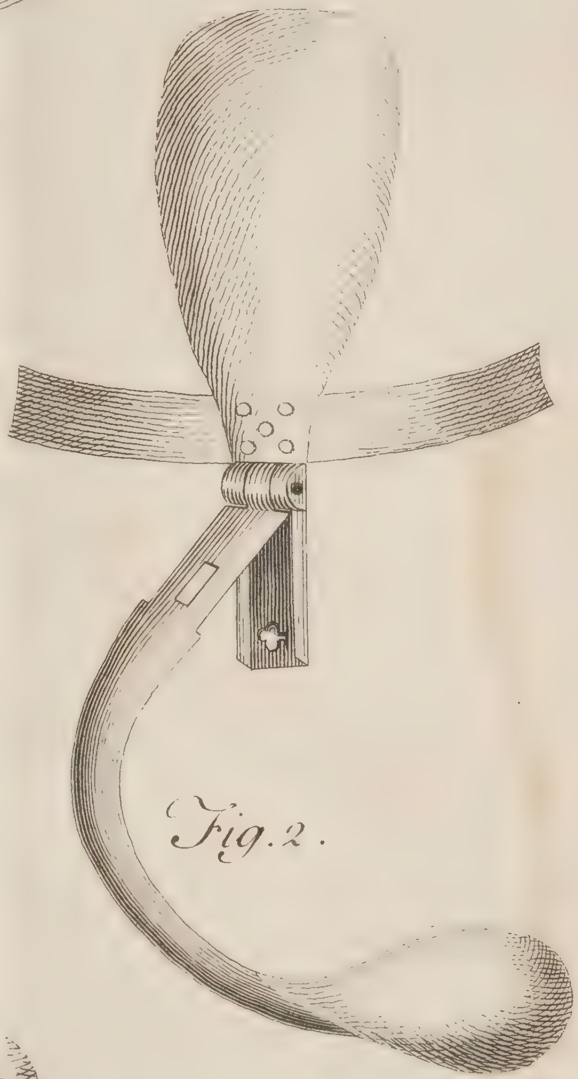

Fig. 2.

meaſuring for this, as well as for common truſſes, is with a wire, which can be turned every way, and will ſtand to the form or make of the parts.

Additions or alterations may be made in this machine occaſionally, at the diſcretion of the Surgeon; perhaps another bow to paſs over the loins, a ſuſpenſory from the ſhoulders, or a ſtrap between the thighs, coming from the waiſt-band, and hanging unto a hook on the outſide of the pad, &c. may be found neceſſary to fix it ſteadily and well in ſome caſes.——In order to have an opportunity of turning it back out of the way upon any occaſion, a joint may be made juſt below the bow, letting the ends lap a little one over the other, to be fixed at a proper diſtance from the joint, by turning a ſmall button, after paſſing through a ſlit, in ſuch a manner as any ingenious workman will eaſily conceive, from what is repreſented in the Plate annexed.

Of the dreadful conſequences of indurated excrements accumulated in the *Rectum.*

A FEW years ſince I was deſired, with a a Phyſician of the higheſt character,* to attend a patient who had long been in other hands, and the caſe treated as an obſtinate *Diarrhæa*; and now a total ſuppreſſion of urine had attended the other diſorder many days. The great diſcernment of this excellent Practitioner made him ſtrongly ſuſpect what was really the cauſe of both complaints: on which account I was ſent for, and upon examining the *Rectum* with my finger, I found it crouded with hardened excrements, in large diſtinct lumps, by the ſide of which ſome thin *Fæces* frequently eſcaped, and deceived thoſe who had before been concerned, who did not think of examining the *Rectum*. The bladder was ſo diſtended with urine, that we cou'd plainly obſerve its figure riſing up near to the navel, and eaſily feel the fluctuation of the fluid in it. As the ſuppreſſion of urine was become the moſt diſtreſsful circumſtance, and attended with extreme pain, I propoſed attempting to paſs a *catheter* directly, and ſucceeded with very little difficulty, notwithſtanding the reſiſtance and preſſure of the excrements at the neck of the bladder, and drew off ſeveral pints of urine After giving the patient this relief, I made room in the *Rectum* to inject, with a large ivory ſyringe, warm *Ol. Olivar.* as far up as poſſible, which operation was frequently performed, and in the ſpace of twelve hours brought away an immenſe quantity of indurated lumps of excrements, ſome of a vaſt ſize, to his inexpreſſible eaſe and comfort, as he had for ſome weeks been in the utmoſt diſtreſs.

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* Doctor *Offley* of *Norwich*, a Gentleman of the moſt reſpectable character out of his profeſſion as well as in it.

I HAVE been concerned in ſome ſuch oppreſſive caſes as theſe, where I have been forced to uſe a ſcoop, like that uſed in *lithotomy*, before any kind of injection cou'd take effect; particularly in one attending a *Hemiplegia*, for want of due attention at firſt. In this caſe I was aſſured the patient had not had the leaſt *fæcal* diſcharge for a month; and to this circumſtance the perſons who attended her conſtantly ſpoke in the moſt poſitive terms, when I queſtioned the truth of what they aſſerted.

HERE, the *Rectum*, which is very capacious, was diſtended with excrements to its utmoſt limits, the parts having totally loſt their expulſive power; and to remove them ſufficiently to admit of injections, to any purpoſe, proved a very tedious and laborious piece of work, which I performed principally with a marrow ſpoon, an inſtrument the beſt adapted for ſuch an operation, that I cou'd procure upon this exigence.

An extraordinary caſe of biliary concretions paſſing through, in conſequence of an abſceſs formed under the falſe ribs.

November the 15th, 1760.

MR. *Carter*, Houſe-Steward to Sir *Armine Wodehouſe*, about ſixty years of age, was ſeized, 15 or 16 years ago, with a violent pain in his ſtomach, as he expreſſed it himſelf; which returned, at times, very ſeverely, for the ſpace of two years, and then went off almoſt entirely. During all this time he was free from ſymptoms of the jaundice, but his complexion denoted a diſeaſe of the liver; and probably the pain he formerly complained of, aroſe from the irritation of ſome ſuch concretions, in their paſſage through the *cyſtic* or other *ducts*.

ABOUT two years ſince, he fell upon the region of the liver, acroſs a wooden horſe uſed in ſawing billet; for which accident he neglected to apply to a Surgeon, having no other complaint, immediately in conſequence of the fall, than a little tenderneſs upon the part, as might ariſe from a ſlight contuſion, which went off in about a month. He remained eaſy till *May* 1760, when he firſt obſerved ſome thickneſs of the teguments, of a ſmall extent, juſt beneath the ſhort ribs; but attended with no pain, except a little pricking ſenſation on the right ſide when he ſtooped; nor was there then the leaſt appearance of inflammation or diſcoloration upon the ſkin. The tumor gradually increaſed, in a few weeks, to the length of ſix inches, with the courſe of the ribs, and four in breadth, and in this ſtate it remained till the *Auguſt* following, when the ſkin became thin and inflamed in the centre, the dimenſions of a large pea, where it was ſuffered to burſt of its own accord: at which opening a great quantity of ichor was diſcharged, but the patient cou'd not certainly ſay, whether it had or had not a bilious color or appearance. This ſpontaneous opening ſoon cloſed, ſo far as not to admit of the ſmalleſt probe, when he applied to a Surgeon, though, at the ſame time, the diſcharge indubitably proved there was ſome *ſinus* of great extent.

At the time above-mentioned, *Nov.* 15th, 1760, the patient came to me, with his Surgeon, at his Maſter's deſire. We cou'd not then introduce the ſmalleſt probe, but the ſtilet of a *catheter* entered readily, almoſt in an horizontal line, in an erect poſture, about two inches, where it ſtopped againſt ſome ſolid ſubſtance, which ſeemed firmly fixed. We agreed, that the opening ſhou'd be ſufficiently enlarged when he returned home, after which the Surgeon extracted a biliary concretion, about the ſize of a large garden-pea, and in a few days 24 more came forward, ſo as to be eaſily extracted. They much reſembled old, hard *caſtile-ſoap*, and were depreſſed into various irregular, angular figures, as delineated in pl. 9. They were ſo inflammable as to be entirely conſumed in ſmoke and flame, upon a hot iron, except a ſmall portion of a terrene matter; one of them, being burnt in that manner, filled the room with a ſtrong gummous ſcent. (*a*)

(*a*) See Doctor *Coe's* excellent book upon biliary concretions.

The aperture was kept open with a leaden canula, in order to give a free exit to the matter, and facilitate the expulſion of more concretions, that might remain in the part; and by the *Auguſt* following he had voided 68 of theſe ſtones. At this time, upon paying a viſit to Sir *Armine Wodehouſe*, I found our patient in better health than he had been for many years, and much freer from an aſthmatic complaint he had long been afflicted with, following his buſineſs with eaſe and ſatisfaction: but finding ſome little inconvenience attended keeping the paſſage open, he was much inclined to leave out the canula, and ſuffer it to cloſe; againſt which ſtep I ſtrongly remonſtrated; and after ſhewing him of what conſequence it appeared, to have the opening preſerved, both to give room for the expulſion of more ſtones, which might ſtill remain behind, and on account of his aſthmatic diſorder, &c. he yielded to my advice, though with ſome reluctance.

When I attended one of Sir *Armine Wodehouſe's* ſons, in *December* 1762, with Doctor *Offley*, we ſtrictly inquired and examined together into Mr. *Carter's* ſtate and condition. We found the canula ſtill in the fiſtula, and adviſed the continuance of it, by all means:—that he had voided no concretions ſince *Auguſt* 1761:—that his health in general was much improved:—that he breathed well:—that he had, in a great meaſure, loſt the copper-color of his face, denoting an *hepatic* diſeaſe; and that he was grown as full of fleſh, according to his own account, as in the former part of his life, before this diſorder came upon him.

In the 1ſt vol. of the *Mem. of the royal Academy of Surgery at Paris,* and in the firſt *Memoir,* concerning tumors of the gall-bladder, written by *Monſ. Petit,* are three caſes related, from *Leauté, Peyronie,* and *Saurau,* well worth reading on this occaſion; but a precedent more pertinent and ſimilar to the caſe I have been relating, than I can find in any other book, is recorded by *Bonetus,* in his collection of rare caſes, entitled, *Medicina ſeptentrionalis collatitia,* vol. 1. pag. 657; for which reaſon, and becauſe that work is in but few hands, I have tranſcribed the whole from it.

Calculi ex Abceſſu circa Hepar.

‘Pauci elapſi ſunt anni, quod hic Uratiſlaviæ vixerit, Johannes Groſchius, Œconomus Xenodochii ad Spiritum Sanctum, vir robuſtus ac validæ conſtitutionis, temperamenti ſanguineo-cholerici. Hunc quondam menſe junio anno ætatis 60, deſubitò rigor vehemens invaſit, cui poſtliminio dolores in hypochondrio dextro ad regionem hepatis una cum tumore nucem juglandem æquante acceſſerunt. Tumor is, doloribus perſiſtentibus, intra ſemeſtre ſpatium adeô increvit, ut tandem panem ſiligineum Uratiſlavienſem quantitate tantum non ſuperaret, ſicque induruit ut ſcirrhum referret. Quanquam vero affectui huic cura diligentior adhibenda fuiſſet, ægrotus tamen nec Medico nec Chirurgo uſus, ſed ſui ipſe curam ſuſcipere auſus eſt; internè quidem Balſamum Sulphuris, aliquandiu ſingulis diebus, deinceps bis terve in ſeptimana, ut et nonnunquam pulverem cardui benedicti adhibuit, et pro evacuatione quandoque, velut pro libitu, rhabarbarum; externè vero ab initio ad finem morbi nil niſi Emplaſtrum Jenſigneri Norinbergenſe tumori applicuit. Tandem aliqando contigit, ut circa Feſtum Nativitatis Chriſti, dum noctu ægrotus dormiret, ſe haud ſentiente, tumor rumperetur, unde magna quantitas materiæ pultis inſtar craſſæ, cinericei coloris, integris quatuor ſeptimanis profluxit, donec tumor quaſi omnino deſideret.

‘Poſt hæc ex vulnere, quod interea in fiſtulam degeneraverat, atque in nonum uſque annum, indito in id inſtrumento argenteo apertum ſervabatur, juxta cum humore ichoroſo, ſucceſſivi plurimi lapilli provenerunt, diverſæ magnitudinis, formæ & figuræ, ſic ut alii triangulares, alii quadrangulares, alii ſexangulares, deprehenſi ſint, inter quos majores, glandibus faginis, minores vero, granis ericæ ſimiles erant.

‘Iidem coloris ſunt extrinſecus ſub-punicei, inſtar caſtanearum nondum omnino maturarum, inducti tenui quodam cortice, intrinſecus lutei inſtar rhabar-

‘ bari, quo ægrotus ſæpius utebatur. De cætero lapilli dicti ſunt friabiles, pondere admodum leves, ac numerum eorum novem annorum ſpatio excretorum quingentenarium aut ſexcentenarium æquare, hæredes ægroti affirmant; eorundem etiam lapillorum nonnullorum numerum ad 80 apud me aſſervo. Quamdiu vulnus apertum conſervatum eſt, et lapilli excreti ſunt, cætera vir ille benè valuit, et ad quævis ſua munia obeunda, ſupra morem ætatis, expeditus & alacer; quamprimum vero vulnus ſua ſponte coaluit, in alios morbos incidit, præcipuè vero interdum in Aſthma, interdum in icterum, ſæpius in Diarrhæam, quorum morborum unus tandem quoque ipſi vitam extinxit, poſtquam 72 ætatis annum acceſſiſſet.’ *A Godofr. Thileſio.*

An extraordinary incyſted tumor formed in the middle and very ſubſtance of the liver.

IN the year 1763, a Surgeon of eminence in the City of *Norwich* deſired a Phyſician, with me, to ſee a girl about nine years of age, who had a ſwelling upon the region of the liver, extending almoſt acroſs the *abdomen*, and into the *thorax*, as evidently appeared by the ribs bulging there on the right ſide, quite to the ſuperior part of it. It was ſuppoſed to proceed from a contuſion received by a fall three or four years before; and, upon ſtrict examination, the diſeaſe appeared to us an enlargement of the liver: beſides which, we were alſo very ſenſible of a fluctuation of ſome kind of fluid. The child was in conſtant pain, labouring much for breath; on which account, a few days after, at the mother's earneſt entreaty, the Surgeon was induced to make a puncture with a lancet, rather to ſatisfy her importunity, than expecting any advantage wou'd accrue. Only a ſmall quantity of fluid was diſcharged, and next day ſhe died.

Upon opening the body, we found the liver of an enormous ſize; it had forced its way almoſt to the *clavicle*, carrying the *Diaphragm* with it, and compreſſed the right lobe of the lungs to ſuch a degree, that it cou'd not be inflated with air. It alſo adhered very ſtrongly to the *Diaphragm*, as did the lungs to the *pleura*; and the heart, flabby and ſhrunk, was reduced to very narrow limits, on the other ſide. In the very body of the liver was a thick cyſt, reſembling tripe, which contained near five pints of a lymphatic fluid lightly tinged with bile; which cyſt was ſo entirely diſengaged, that upon making a large longitudinal inciſion into the ſubſtance of the liver, it inſtantly ſlipped out to our great ſurpriſe.

A ſingular caſe of the ſtone.

J. H. of P. aged 48, had been ſubject to the ſtone from his infancy; was ſearched, and ſhou'd have been cut, at eight years of age. His conſtitution was naturally robuſt, but he had much impaired it by drinking, and living a very intemperate life.

THE operation was performed, on *June* the 8th, 1746, after *Marianus's* method, by Mr. *Harmer* late of *Norwich*, an experienced Lithotomiſt. It was found impracticable to extract the ſtone, through a wound of the common ſize, which the operator had made, or to break it by the force of the *forceps*; therefore, at his deſire, I divided the parts occaſionally, as he continued a gentle extraction.

THERE was no reaſon to expect the wound wou'd ever be perfectly healed, after the extraction of a ſtone of that enormous ſize; but he had no ſymptoms that threatened his life in conſequence of the operation. He died in *April* 1751, and conſtantly walked abroad till a few days before his death.

The ſtone is repreſented in pl. 9. fig. 1. It weighed near 15 ounces, and I believe is the largeſt we have upon record, taken from a living ſubject. I have it now in my poſſeſſion. It is of a hard texture, and has a ſubſtance like *ſpar*, to a conſiderable thickneſs, upon many parts of its ſurface.

The wound remained in a foul and bad condition, and was made worſe by being conſtantly wetted with the urine, which prevented all applications from having their proper effect. Theſe circumſtances induced this poor, unhappy ſufferer, to endeavor to tempt a little favourite dog to lick the parts: and in a ſhort time he was ſo well inſtructed in his buſineſs, that whenever his maſter laid down and uncovered them, he immediately went to work with his tongue, which afforded a pleaſing ſenſation; and then the application of ſoft, dry linen cloths, gave him more eaſe, than any applications his Surgeon furniſhed him with. As long as he lived his dog was his Surgeon, and kept the wound tolerably clean and eaſy, to his great comfort and ſatisfaction, as he often told me.——*Belloſte*, in his Hoſpital-Surgeon, has a diſſertation upon the balſamic qualities of a dog's tongue, in a letter to his friend *M. Sancaſſani*, written in anſwer to ſome queries.

A caſe in which ſixteen ſtones were extracted out of the *Urethra* and *Bladder*.

THE perſon from whom theſe ſtones were taken, as repreſented in pl. 9. fig. 2. was cut for the ſtone at four years of age, by Mr. *Donne* of *Dereham*, an expert Lithotomiſt, as well as a very able Surgeon. Nothing particular occurred in the operation; but when the wound was almoſt cicatrized, the urine not having paſſed through it for near a week, as the child was tumbling upon the bed, he fell aſtride on the frame of the bedſtead; by which accident the wound was broke open, and the adjacent parts violently contuſed; and afterwards it cou'd not be perfectly healed.

HE was again brought under Mr. *Donne's* care ten years after, who, upon ſtrict examination, diſcovered a hard body, in the courſe of the *Urethra*, from the *Scrotum* into the bladder. Theſe ſtones were then eaſily extracted, through a wound of between two and three inches long. All of them were contiguous, and bedded the one into the other. That which appears of an irregular, oval figure at one end, was loſt in the *Scrotum* ; the two at the other end, being all that were found in the Bladder, much reſembled the ball and ſocket of a bone, and at firſt ſight had more the appearance of bone than ſtone. All the other were like alabaſter in color, and of as fine, or rather a finer poliſh. Various attempts were made to cure the wound, but all in vain. When I ſaw this patient, he was a ſtout, ſtrong man, aged 24, and ſeemed not to want health in any other reſpect.

I HAD the above narrative given me, as well as the opportunity of examining the patient, when I was with Mr. *Donne* in *November* 1755, on account of his cutting a young gentleman for the ſtone ; in whoſe caſe, and alſo in the operation, there were ſome remarkable circumſtances. It was obſerved, that the patient's bladder was frequently ſeized with a ſpaſmodic contraction, and that his urine always ran from him then involuntarily. As ſoon as inciſion was made into the ſtaff, this ſpaſm forced out the urine, before the operator cou'd introduce the gorget into the bladder; and upon introducing the *Forceps* he cou'd not find the ſtone: after ſearching ſome time he withdrew them, felt with his finger, and deſired me and another Surgeon to do the ſame: we cou'd not feel any, but all of us were ſenſible of an unuſual ſtricture, at the extremity of our fingers: after a little farther ſearch in the common poſture, we removed the ligatures, and placed the patient in an upright ſitting poſture, and then preſſing ſtrongly upon the *abdomen*, relaxed the ſtricture, and brought the ſtone inſtantly down to the neck of the bladder, when it was eaſily extracted.

THIS patient was an unpromiſing ſubject, much emaciated and hectical; yet the ſymptoms after the operation were very favourable, and he ſoon recovered a good ſtate of health.

Pl. 9.

Fig. 1.

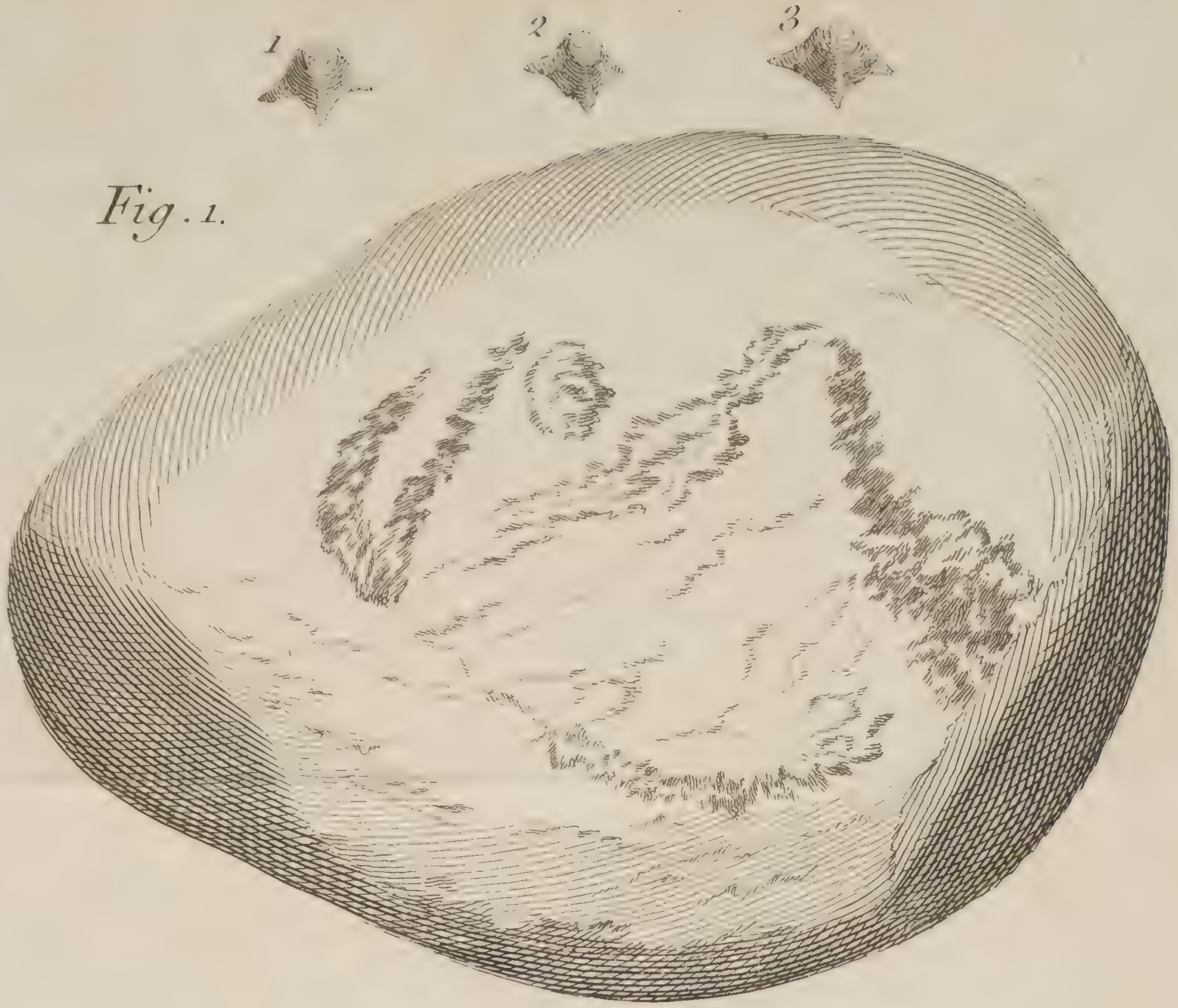
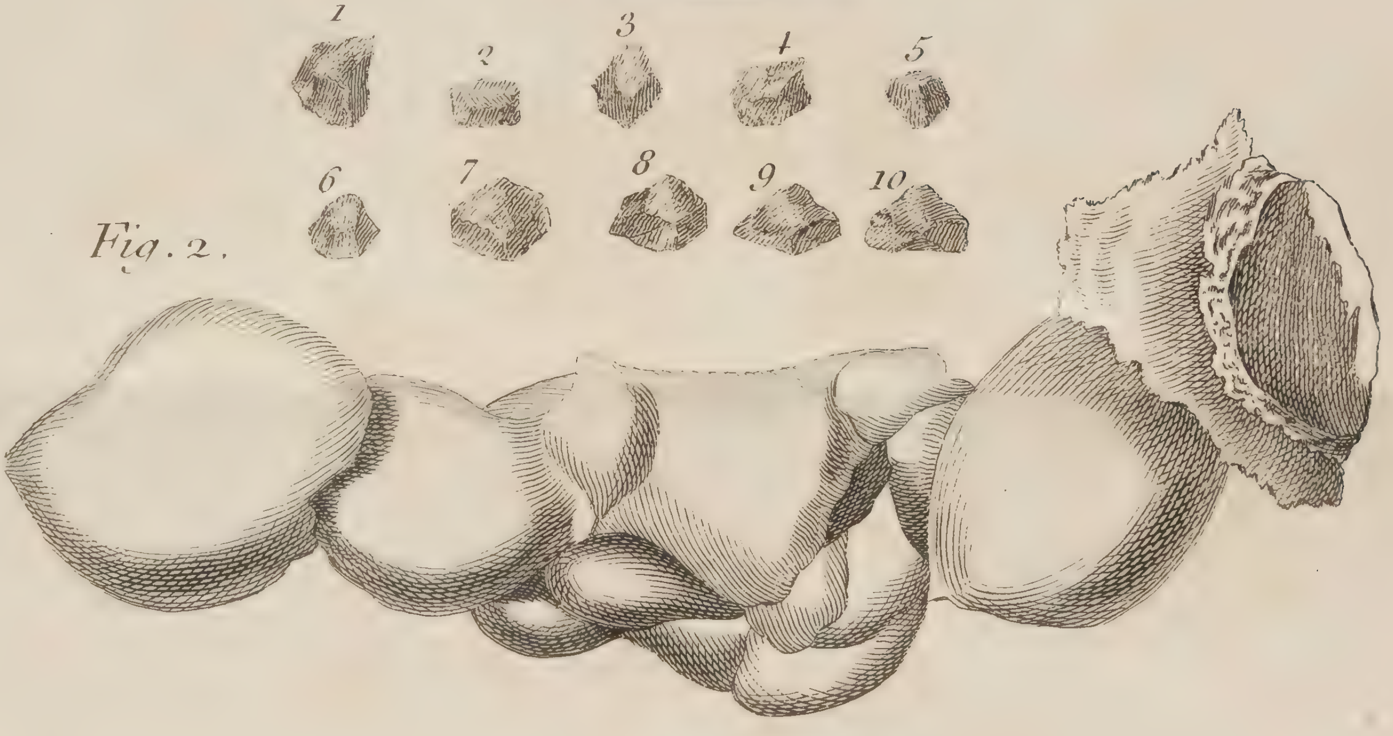


Fig. 2.



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Of ſtones long fixed in the *Urethra*, happily removed, in a ſhort time, with great eaſe.

IN the year 1761, I was called to a perſon upwards of fifty years of age, under a total ſuppreſſion of urine of two days continuance; and who for many weeks before had voided his urine *guttatim*, attended with great pain. The cauſe of this complaint in the *Urethra* was ſuppoſed to be a ſtricture, or ſome other venereal ſymptom, he having long been ſubject to that diſeaſe, in a great degree. I introduced a bougie, and, at two or three inches from the end of the *Penis*, met with an obſtacle, which irreſiſtibly prevented its paſſing. I then tried with a ſmall *catheter*, and by that found the reſiſtance was owing to a ſtone; with ſome difficulty I got the inſtrument paſt it, but met with two more ſtones, before it reached the bladder. By this means I drew off about four pints of foul urine: and immediately after this evacuation, I injected fine oil, by an ivory ſyringe with a long ſlender pipe, let him blood, ordered an emollient clyſter, and an anodyne draught; earneſtly deſiring him to drink common emulſion, and ſuch kinds of liquors very freely; and that oil might be injected every hour or two, in the manner which has been directed. This method ſucceeded ſo happily, as to procure the patient immediate relief, after having been long in the utmoſt diſtreſs; and in the ſpace of eight hours, the canal being well lubricated with the oil, by the current of the urine alone, three angular ſtones, of a conſiderable ſize, were expelled with very little pain.

By the ſame means a few months ago, I relieved a young man brought to me by a Phyſician, who had a ſtone lodged in the middle of the *Urethra*; but in this caſe the ſymptoms were not ſo violent as in the preceding.

Under ſuch circumſtances as theſe, putting the patient into a warm bath immediately after adminiſtring an emollient clyſter, and injecting the oil, may greatly aſſiſt in the expulſion of the ſtone.

That great and good man, Doctor *Hales*, to whom the world is infinitely obliged, invented an inſtrument reſembling tweezers, paſſing through a ſilver *canula*, in order to extract ſtones out of the *Urethra*, and firſt communicated it to Mr. *Serjeant Ranby*, which received his approbation, as well as that of many other Surgeons.——See his Statical Eſſays, at the concluſion of Experim. ii. upon the human *Calculus*.

The caſe relating to the three ſtones deſcribed in Pl. 9.

MR. *P.* a very reputable tradeſman in the City of *Norwich*, now upwards of ſixty years of age, voided thoſe ſtones when about ſixteen years old. Before that time he had never ſuffered any acute pain in the region of the kidnies; but by a violent ſhock in a fall down ſtairs, the ſtones were diſlodged from their long reſidence; and then pain to an exceſſive degree immediately enſued. In their paſſage through the *ureters*, the pain was not quite ſo excruciating as in paſſing through the *Urethra*, as he ſays he well remembers. They are of a pale brown color, not ponderous; their ſurface, to the very extremity of the points, have an uniform high poliſh, reſembling china-ware; probably acquired by the friction of the urine, mixed with ſabulous matter, in their quieſcent ſtate, their points being fixed in the uriniferous *ducts:* for admitting they laid all together in one pelvis, their figure muſt prevent their attrition, to produce ſuch an effect, as every part of them cou'd not poſſibly come into contact. After the expulſion of theſe ſtones, he uſed, now and then, to have nephritic ſymptoms, but never to any great degree, till *April* 1763, when I was deſired, by an ingenious Apothecary, to attend him. The fit was brought on by a ſudden ſhock in a coach, and was removed by the common treatment, without any appearance of a ſtone or calculous matter; but it might eſcape with his urine unobſerved upon going to ſtool. At this time I was ſhewn theſe ſtones, of which I took an exact draught, with my pencil, and received the preceding hiſtory of the caſe, from the patient's own mouth, who is a man of great veracity.

A caſe of the ſtone in a woman, attended with ſome uncommon circumſtances.

MRS. *T.* of *A.* aged between forty and fifty, after having been ſeverely afflicted with the ſtone for about ten years, and uſed various medicines to no purpoſe, had recourſe to Mrs. *Stephens's* Lithontriptics; but with no better effect, though ſhe gave them a fair trial, in eleven months regular perſeverance. Growing daily worſe in all reſpects, ſhe reſolved to ſubmit to the operation, ſhou'd it be thought adviſable, her conſtitution being much impaired, and having a conſtant diſcharge of purulent matter from her bladder.

Auguſt the 17th, 1740, ſhe aſked my advice, and after well conſidering all her complaints, I was of opinion that it was right to extract the ſtone, though the event of the operation cou'd not but be looked upon as very precarious; for by paſſing my finger up the *Vagina Uteri,* I cou'd plainly diſcover it was of a large ſize; the friction of which had cauſed inflammation and ulceration in the bladder.

After putting her in the uſual poſture for the operation, I intended to have proceeded in the common manner, by dilating the *Urethra,* and making an inciſion as ſhou'd be found neceſſary to facilitate the extraction of the ſtone; but finding with my finger, that it laid very favourably to be cut upon, through the *Vagina Uteri,* now conſiderably dilated, I altered my original deſign, and, with the approbation of two experienced Practitioners, cut directly upon it, and extracted it with very little pain to the patient, or trouble to myſelf, compared with what a ſtone of between three and four ounces weight muſt unavoidably have occaſioned, by performing the operation in the common method.

The ſymptoms after the operation were the moſt gentle; the ulceration of the bladder ſoon healed, by ſoft, balſamic injections, and ſhe was perfectly cured in three weeks, without any defect remaining in the retentive faculty. I have ſince been concerned with other Surgeons, in two caſes ſimilar to this, who were induced to practice the ſame method, and which ſucceeded as happily.

Concerning the uſe of the *cutting-gorget*, &c.

THE uſe of the common *gorget*, as improved by Mr. Serjeant *Hawkins*, obviates an accident, which may happen in the lateral operation, when performed by the moſt ſkilful artiſt; but the cutting part of the edge, for a very obvious reaſon, ſhou'd not extend above one third or fourth of its length; and it ſhou'd have a ſmall ſhoulder, that it may enter with the greater facility.

SINCE this improvement by that excellent Surgeon, whoſe merit has raiſed him to the higheſt ſtation in his profeſſion, other *cutting-gorgets* have been invented; but his is preferable to any I have ſeen, on account of its ſimplicity and ready uſe: and I have examined the parts, after doing the operation upon a dead body, and found they were cut exactly in the direction recommended by the late Mr. *Cheſelden*, in his method of performing the lateral operation, without running any hazard of wounding the *Rectum*; a circumſtance which has happened to the moſt judicious *Lithotomiſts*.

I have uſed it many times, without any apparent inconvenience either in the operation or after it; evidently with great advantage in ſome inſtances.

The firſt was in a child of eight years old, who had a very bad conſtitution, and was an unpromiſing ſubject, having a variety of complaints beſides the ſtone; yet, in this caſe, the wound was perfectly healed in nineteen days.

The ſecond was in a patient of eleven years old, who had a ſtone of full three ounces weight, the external *Lamina* of which, not bearing equally upon the next, cracked in the *Forceps* in many places; but it was extracted, without any of the pieces ſeparating. Two days after the operation, he was ſenſible of an occaſion to make urine, which he voided through the *penis* with a pretty full and ſtrong ſtream; and very little paſſed by the wound after that time, which was more ſpeedily healed for this reaſon.

In another caſe where I uſed this *gorget*, the ſubject was about twelve years old, who had ſymptoms of the ſtone ſoon after he was born, and had taken a great quantity of ſoap medicines for a long while, by the advice of a Phyſician. Here it appeared the ſtone laid conſtantly at the neck of the bladder, where it had cauſed an uncommon thickneſs and hardneſs of the parts, as far as we cou'd feel with our fingers introduced into the *Anus*, with ulceration; from whence much purulent matter was continually diſcharged, and being mixed with the urine, was detained between the *Glans Penis* and the *Prepuce*, excoriating and ulcerating thoſe parts; for the *Prepuce* was ſo much contracted at the end over the *Glans*, that it wou'd not admit of the ſmalleſt *ſound*; which circumſtances made circumciſion abſolutely neceſſary before *Lithotomy*: and beſides theſe unfavourable circumſtances, he had a *Procidentia Ani* always upon going to ſtool, and often at other times, from extraordinary irritation at the neck of the bladder. On account of the hard and unyielding condition of the parts thereabout, the *cutting-gorget* appeared of ſingular ſervice in this caſe, to my Brethren who were preſent at the operation, as well as to myſelf. The ſtone was very large and ſoft, like ſand and clay mixed together; conſequently it broke into innumerable pieces, which were all extracted, and the operation ſucceeded happily. The wound was perfectly healed, though with as much trouble and difficulty as the operation was performed. *Bougies* greatly aſſiſted in the cure, by introducing them occaſionally, as they cou'd be born, to recover and preſerve the natural paſſage of the *Urethra.*

From ſome conſiderable experience I have had, in the uſe of this *cutting-gorget* in Females, I have reaſon to believe it may be found as uſeful as *Monſ. Le Cat's,* or *Monſ. Pouteau's Lithotomes,* invented by thoſe ingenious Surgeons to anſwer the ſame purpoſe.

It ſometimes happens, both in males and females, that beſides the difficulty of extracting a large, rough, irregular ſtone, there is alſo great danger of lacerating the bladder, unleſs a conſiderable enlargement of the wound is made; and when that has been omitted, I have ſeen ſome very unlucky accidents attend a violent exertion in extracting the ſtone. In order to obviate ſuch inconveniences, I think, inſtruments, which may be called *dilators*, ſomething in form of a *gorget*, only broader, much leſs concave, very thin and without any beak, may greatly facilitate the extraction, and defend the bladder effectually againſt laceration or other injury. After being oiled, one of them may be ſlipped in between the ſtone and the bladder on each ſide, and managed by proper aſſiſtants, when the Operator has laid good and clear hold of the ſtone; and the *forceps* will ſufficiently guard the bladder above and below, and the mere act of extracting the ſtone, under theſe conditions, will alſo as effectually dilate the parts, when that motion is performed gently and gradually.

See Pl. 10. Page 192.

As I apprehend due attention to theſe means may prevent fatal conſequences, I ſubmit my thoughts upon this matter with the greater freedom and willingneſs to the conſideration of my candid Brethren: and from the ſame motive, I alſo here introduce the following remark, which a late attendance in an operation gave me an opportunity of making. In this caſe, the bladder collapſed ſo cloſely about a very long ſtone of a conoid figure, with the point forwards, that it was with the utmoſt difficulty the Operator cou'd diſengage it, and charge the *forceps* without taking hold of the bladder at the ſame time, which he very ſtudiouſly and cautiouſly endeavoured to avoid; and this circumſtance prolonged the operation full a quarter of an hour. From what I cou'd here plainly diſcover with my finger, introduced at his deſire, I believe a pair of *forceps* having long and ſlender blades, and ſeparated at the joint as thoſe uſed in midwifery, wou'd have been found very convenient, by giving an opportunity of conveying one blade at a time, firſt above and then below the ſtone, or as the ſituation of it, and other circumſtances, ſhou'd have directed the Operator, by ſearching with his finger; conducting them upon it exactly to the appointed part, giving the firſt to be held by an aſſiſtant, whilſt he introduced the ſecond: and in this caſe I am inclined to think, that by a blade of theſe *forceps*, the ſtone might have been diſlodged, and brought forward, ſo as to have been extracted with eaſe.

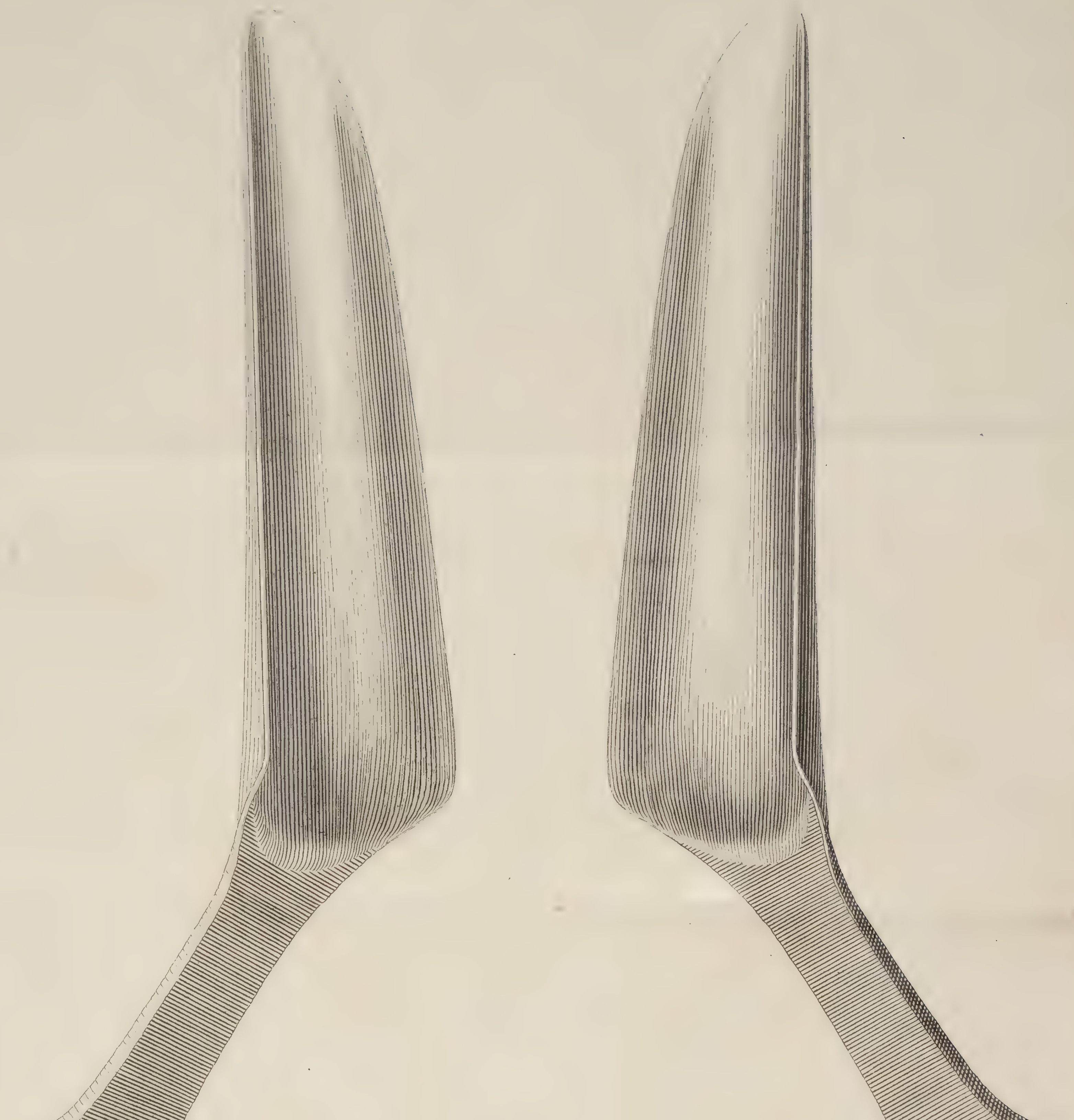
Though this is the moſt ſtriking, it is not the only inſtance which I have ſeen, where ſuch a kind of *forceps* might have proved very uſeful. For the reaſons I have aſſigned, had I not given over this operation, I wou'd have provided myſelf with the inſtruments I have been recommending, of various ſizes, to be uſed upon the emergencies I have ſpecified : however, I have had much converſation upon this occaſion, with ſeveral able and experienced Surgeons, who readily agree with me in the evident utility of theſe inſtruments, which I propoſed to their conſideration, and ſome of them, to ſhew their farther approbation, ſaid they wou'd order ſuch to be made directly.

PLATE 10.

Sketches repreſenting the *Dilators* mentioned in the remarks upon *Lithotomy*, and ſhou'd be had of various ſizes, as well as the *Gorgets*.

A

Pl.10.



A very ſingular complaint in the bladder.

Auguſt the 13th, 1765.

THE patient is about thirty years of age, naturally of a good conſtitution, and now apparently in better health in general than cou'd reaſonably be expected, conſidering what he has ſuffered for many years.

SEVEN years ago, and never before, as he poſitively avers, he contracted a ſlight *Gonorrhœa,* which was attended with no particular circumſtances; but he very unfortunately fell under improper management. Inſtead of bleeding, lenients, and a ſtrict obſervance of a proper regimen, many doſes of ſtrong mercurial purges were given him; with which he was alſo permitted to go abroad, and upon catching cold had his mouth in ſome meaſure affected by the mercury. Soon after he took *Balſ. e Copaib.* liberally, by which the running was totally ſtopped in a few weeks; but the ſtrangury immediately increaſed, and he has never ſince been free from it. The moſt violent ſtrainings and extreme pain conſtantly attend the voiding his urine, the latter of which always continues ſome conſiderable time after. The moſt rational treatment of the ableſt Practitioners both in the Country and in *London*, have afforded him no relief of any conſequence, notwithſtanding his ſtrict, long and regular obſervance of their advice in all reſpects, and under their immediate inſpection. The ſeverity of his pain has long obliged him to the free uſe of *opiates*; and ſometimes his diſtreſs and agonies have driven him to the neceſſity of taking two ounces of *Tinct. theb.* in 24 hours, as he poſitively aſſured us, and yet this enormous quantity wou'd only procure him a little eaſe, but no ſleep.

It ſeems highly probable that the maltreatment, at firſt, might be the cauſe of fixing an inflammation upon the neck of the bladder, *proſtate gland*, &c. terminating in an *abſceſs*, and leaving the parts in an ulcerous and fungous ſtate, in which they evidently appeared by the diſcharge of much purulent matter mixed with *mucus*, and ſometimes with pieces of a ſoft, fleſhy ſubſtance. Under ſuſpicion of a ſtone in the bladder, though he had never been ſubject to ſymptoms of it, prior to his venereal complaint, he was ſearched ſeveral times, both in the Country and in *London*, by the moſt experienced Surgeons, without finding any ; but all agreed, that by introducing the finger into the *Rectum*, they felt a great thickneſs and hardneſs about the neck of the bladder.

Some years after, in *Auguſt* 1765, as mentioned in the beginning of this hiſtory, he came to *Norwich*, and conſulted Doctor *Offley* with me in this moſt deplorable ſtate ; bringing with him a narrative of his caſe accurately drawn up by an able and experienced Phyſician, under whoſe care he then was, giving an account likewiſe of every method that had been practiſed. After paying all attention to it, and receiving all poſſible information from the patient himſelf, who is a very ſenſible, intelligent man, we cou'd not ſee aught was to be expected from any other means, than what had been before ſufficiently tried: and as he cou'd bear neither *bougies* nor injections, it appeared to us reaſonable to propoſe, for future conſideration, the making an inciſion into the bladder as in *lithotomy*, as the only expedient to alleviate, if not cure, ſuch a direful calamity, by giving a free diſcharge to the matter. (*a*) And the Phyſician, (*b*) from whom we received the narrative, thought it a rational propoſition highly worthy attention.

After this, ſome other of the moſt eminent Phyſicians and Surgeons in *London* were

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(*a*) Vid. *Hoffmanni Cap.* VII *de gravi ſpaſmo & dolore veſicæ & adjacentium partium*, § VII *de curatione.*—*Boneti Sepulchret.* vol. 2. pag. 634. & *ſeq. de urinæ ſuppreſſione.*——And the authority of *Riolanus*, ſupported by experience, concerning the practice under conſideration, ſhou'd by no means be diſregarded, as he expreſsly ſays he has ſucceeded by ſuch an operation in ſimilar caſes, in his *Enchiridium aureum.*

(*b*) Doctor *D'Urban*, of *Haleſworth* in *Suffolk*, who has given many proofs of his judgment in the province of Surgery, having had great opportunities of ſeeing the practice, both at home and abroad, in ſeveral of the moſt conſiderable Hoſpitals, and being well acquainted with Anatomy.——My connection with this Gentleman prevents my ſaying more, to which his merit gives him a very juſt claim.

were conſulted ; but a contrariety of opinions prevented the propoſed operation ; tho' indeed nothing of conſequence was offered to build hopes of advantage upon, more than was to have been expected from former methods.

THE patient ſtill remaining in the ſame deplorable condition, upon the very ſtrong recommendation and encouragement of ſome friends at *Rotterdam*, he went, in the ſpring of the year 1766, to try the efficacy of the famous medicinal waters at *Bareges* in *France*, and uſed them the whole ſeaſon ; but without receiving any benefit. (*a*)

(*a*) The thermal ſprings at *Bareges* are at the foot of the Pyrenean Mountains, in a valley towards the ſouth, where commodious covered Baths were built by order of the King.——See Sir *Chriſtopher Meighan's* judicious and entertaining treatiſe on theſe medicinal waters, with a deſcription of the village of *Bareges*, the adjacent Country, &c.

It is greatly to be wiſhed, that there was a convenience for bathing under cover at *Bath:* I ſuffered much for want of ſuch accommodation in the uſe of the Baths, by being expoſed to the open air in a cold autumnal ſeaſon. As *Bath* is a place of the higheſt repute for its ſalubrious ſprings, and to which multitudes of people of all ranks and conditions conſtantly reſort, it ſhou'd be provided with every convenience to accommodate invalids for their benefit and ſafety.

When this unhappy Gentleman came to *Bourdeaux* in his return, his complaints ſtill became more grievous; and after being there detained ſome time, deſirous of getting home, he adventured to proceed in his journey; but immediately after his arrival at *Dover* he was freed from his painful exiſtence; and dying from home we were deprived of the opportunity of inſpecting the diſeaſed parts, to know the true nature and condition of them.

Soon after the preceeding caſe came under my notice, a Gentleman conſulted me, who more than a year before, on account of a complaint in the *Urethra*, introduced a *Bougie*, where he incautiouſly left it, without being ſecured in the uſual manner; and in the night it ſlipped ſo far into the bladder, that it cou'd not be recovered; and not being cut upon, as it ſhou'd have been immediately, it ſoon ſlipped quite in, and occaſioned at the neck of the bladder a violent inflammation, which terminated in an *abſceſs*: and now his caſe is almoſt as deplorable as that I have been relating; for which reaſon I adviſed this Gentleman, as I did the other, to go to *London* for farther advice, with a view of having it particularly conſidered, how far the operation might yet be thought adviſable. (*a*)

(*a*) *Scultetus*, a practitioner and writer of great note at *Ulm* in *Germany*, about the middle of the laſt century, was not ignorant of the manner of making and uſing *Bougies* in diſeaſes of the *Urethra*, as appear in his *Armament. chirurg.* Tab. 13. Fig. 9, 10. And from his invention it is not at all improbable, that Monſ. *Daran* might take the hint, and improve upon it.

A caſe of a complete *Hernia*, attended with a mortification in an aged woman, perfectly cured.

THE wife of *R. R.* of *B.* about ſixty years of age, naturally of a good, ſtrong conſtitution, had a deſcent of the *inteſtine*, &c. *December* the 20th, 1752, to which ſhe had been ſubject many years without ever wearing a truſs for her ſecurity, or being adviſed to do ſo. The uſual ſymptoms attending a ſtrangulation of the *inteſtine* ſoon followed, and an Apothecary was immediately ſent for, who taking her complaint for the colic, treated it accordingly three or four days; but the ſymptoms growing daily worſe, accompanied with excrementitious vomiting, he then looked upon her diſorder as the *iliac* paſſion, and had recourſe to tobacco clyſters, and at laſt to *Argent. viv.* giving her ℔*iſs* at four times, as he told me himſelf. Indeed he was very deficient in point of Surgery, and no proper meaſures had been taken, he being ſtill ignorant of the true cauſe of her diſtreſsful condition, in which ſhe had been nine days when I was called to her. I found the teguments much inflamed and veſicated, with livid ſpots here and there interſperſed; and the tumor having loſt its renitence, I did not doubt of the *inteſtine*, &c. being in a mortified ſtate. The *Abdomen* was greatly inflated, tenſe and painful; ſhe vomited excrements, cou'd bear nothing in her ſtomach, and had the hiccup, with a weak, quick and intermitting pulſe.

UNDER theſe moſt miſerable circumſtances, her relations and friends were come to take their laſt leave of her; and I alſo rather thought death wou'd have put an end to her miſery in a few hours. All that appeared to me rational now to propoſe, and attempt for the preſervation of her life, was to open the part forthwith ſufficiently, in order to remove the ſtrangulation of the *inteſtine*, and evacuate the *Fæces*; though I muſt confeſs I cou'd not expect the caſe wou'd have terminated more favourably, than by leaving an artificial *Anus* in the *Inguen*.

This propoſition being approved by the Apothecary, the patient, and all perſons concerned, I forthwith made an inciſion between two and three inches long, through which there was an immediate diſcharge of many pints of black fluid, fermenting excrements, like what ſhe had vomited ſeveral days, as they who attended her obſerved; upon which diſcharge the inflation of the *abdomen* ſubſided, and ſhe found inſtant relief. I then fomented the parts with a common *antiſeptic Fotus*, dreſſed them with a ſoft animated digeſtive warm; applying a warm *cataplaſm* to them and all the *abdomen*, compoſed of bread, oatmeal, *Spec. pro Cataplaſmate e Cymino* and the fomenting liquor, and adviſed all the dreſſings ſhou'd be renewed every ſix hours, or oftener, as occaſion ſhou'd require, on account of the *fæcal* diſcharge: and I alſo directed the application and repetition of bladders of hot water, about half full, in order to preſerve a due degree of heat from dreſſing to dreſſing; nor did I forget to adviſe the diſcretionary uſe of temperate cordials, laxatives, and clyſters of chicken or other freſh meat broth; and that ſhe ſhou'd, for ſome time, be nouriſhed only with liquid diet, taken in ſmall quantities and often.

After having thus agreed with the Apothecary and nurſe concerning the method to be purſued, acquainting the patient alſo how much depended upon an exact obſervance of it, I left her to his care; urging at the ſame time, in the ſtrongeſt terms, his aſſiduous attendance, as the event of the moſt dangerous caſes, often exceeds our expectations; deſiring he wou'd ſuffer nature to caſt off the mortified ſloughs, without uſing any violence to remove them. The next day he informed me the ſymptoms were favourable, that her diet did not offend her ſtomach, and that ſhe had not vomited ſince the evacuation of the excrements in conſequence of the opening. After having received a good account of the patient for a few days, upon a diſagreement between her and the Apothecary, I was again ſent for, and not being able, with my utmoſt endeavours, to reconcile the difference, ſhe abſolutely refuſing to ſee him more, the care of her neceſſarily devolved ſolely upon me. At this time I found her ſitting up in her chair, with a quick, ſtrong pulſe, and great fluſhing in her face. Upon examining into the cauſe of theſe appearances, I diſcovered they aroſe from tranſgreſſing the rules preſcribed in regard to diet: for notwithſtanding the ſtricteſt injunctions were laid upon her and the nurſe in that point, yet this day for dinner, ſhe indulged her appetite, with roaſted chicken and ſtrong beer, eating and drinking very plentifully. This tranſgreſſion was very near ſubverting the fair hopes we began to have of her recovery: to prevent the ill conſequence of it as much as poſſible, recourſe was immediately had to bleeding, repeating it thrice in 24 hours, with other meaſures, in order to check the riſing fever, and guard againſt an inflammation again ſeizing the weak and tender *inteſtines*; but it was many days before the danger vaniſhed, which ſhe was evidently thrown into by this indiſcretion.

The *Fæces* began to be evacuated by the *Anus*, on the third day after the opening, and they paſſed both ways till the beginning of *March*, which was about ten weeks: the diſcharge of them gradually leſſened at the wound as it contracted; and it was perfectly healed, by the common treatment, ſoon after that time.

On *February* the 4th, I firſt obſerved ſome of the *Argent. viv.* in the wound, that ſhe had taken on *December* the 24th, and which paſſed through that as well as by the *Anus*, till the wound was perfectly healed. For many months afterwards ſhe ſaw ſome, now and then, hanging about the excrements, divided into an infinite number of *globules*, which had loſt their brightneſs, looking like lead long expoſed to the air; and ſhe generally was ſenſible of griping pains, preceding the ſtools wherein ſhe obſerved it.

She now enjoys as good health as in the former part of her life, excepting the natural infirmities of old age; and is entirely free from the calamity ſhe had many years before laboured under.

The happy event of this threatening caſe, may teach and encourage us never to leave our patients, even in the utmoſt apparent danger and diſtreſs, without endeavouring to aſſiſt nature, by all the prudent and rational meaſures we can think of.

I was lately concerned for an elderly man, who had a *Bubonoccle* inadvertently opened for an *Abſceſs*; and who by ſuch kind of treatment as adviſed in the preceding caſe, was perfectly cured. I afterwards recommended wearing a truſs, with a very ſoft, eaſy, broad pad, by way of ſecurity. And many years ago I was an eye-witneſs to ſuch a happy event, or accidental cure, in an old woman, who had a *femoral Hernia* incautiouſly opened, juſt beneath *Poupart's* ligament.

A remarkable *ſcrotal Hernia* in an infant about ten weeks old.

November the 3d, 1755.

MR. *Chaplin*, an ingenious man now in the Navy, deſired me to viſit this child with him, who was taken one evening with a violent fit of crying, and ſtraining to vomit, which continued all night with ſhort intervals. In the morning the mother, a poor, ignorant woman, perceiving a ſwelling from the *Inguen* down to the *Scrotum*, ſent for an old woman, no wiſer than herſelf, to adviſe with. They paid little regard to the prolapſed *inteſtine*, but rolled up the *abdomen* very tight, after their uſual and abſurd manner; which bandage obſtructed the return of it, and produced the following terrible ſymptoms.

Two days after the child firſt complained, he voided a bloody matter by the *Anus*; which diſcharge, mixed with a ſmall quantity of *Fæces*, continued eight or nine days.

Mr. *Chaplin* was then called to him, and found the *Scrotum* vaſtly ſwelled, tenſe and inflamed, with the whole *abdomen* much inflated: on theſe accounts he ordered emollient and diſcutient fomentations, *cataplaſms*, &c. with a proper bandage; and this treatment mitigated the ſymptoms, though the child vomited as ſoon as he had ſucked, as he had all along done.

A WEEK after, the *Scrotum* burſt open, and the mortified *inteſtine* diſcharged the *Fæces* through two orifices, each about half an inch diameter, the one at the ſuperior, the other towards the inferior part, at the diſtanee of near two inches, which were dreſſed ſuperficially with digeſtive and plaſters of *cerat. alb.* in the common manner.

THE firſt time I ſaw the child was a few days after the openings in the *Scrotum*; the diſcharge at which inſtantly removed the inflation of the *abdomen* and the vomiting; but for the ſpace of a week no excrements paſſed by the *Anus*. The preternatural evacuation of them then decreaſed, and they gradually reſumed their natural courſe. The openings of the *Scrotum* healed up ſeemingly ſound in about three weeks; but the inferior one opened again, diſcharged excrementitious matter three or four days, and then finally cloſed. Soon after, the *inteſtine* fell down and returned according to the poſition of the body, beyond our expectation, conſidering the general maxim, that inflamed parts in contact will coaleſce. The child was afterwards perfectly cured of the rupture, by the uſe of a common ſteel truſs, exactly well adapted to the parts for eaſe.

A *ſcrotal Hernia inteſtinalis*, in which the operation was performed five days after the ſtrangulation.

B. D. a farmer's ſervant, aged twenty-one, had been afflicted with a *Hernia* from his infancy, without any means having been uſed to cure him.

On *Tueſday* morning, *July* the 4th, 1754, the *inteſtine* fell down as he was at work alone in the field, where he attempted for many hours to relieve himſelf, as he uſed to do, but in vain: he then returned home, but concealed the nature of his diſeaſe, as he had always induſtriouſly done; and it was ſome days before he diſcloſed what he ailed, when all attempts to reduce the prolapſed *inteſtine* proved ineffectual.

LATE on the *Saturday* evening he was committed to my care; but my endeavors to replace the *inteſtine* having no better ſucceſs, I propoſed the operation to him and his maſter, as the only means of ſaving his life, and they readily conſenting, I performed it early the next morning. The *inteſtine* was not mortified, tho' indeed it was much inflamed ; yet the operation ſucceeded, and he was perfectly cured in five weeks. From what appeared in this caſe, it is not amiſs to obſerve, that the *inteſtine* may ſuffer a longer ſtrangulation, without being mortified, than is generally believed ; but this condition of it may happen ſooner or later ; from a variety of concurring cauſes and circumſtances, worthy the utmoſt attention.

REPEATED bleeding, clyſters, laxative and nitrous medicines, with a thin, cooling diet, taken frequently in a ſmall quantity at a time, to avoid diſtention of the tender *inteſtines*, greatly contributed to remove the inflammation, which was upon the parts before the operation, and to prevent ill accidents in conſequence of it.

THIS patient was near loſing his life ten days after the operation, by the indiſcretion and diſobedience of the nurſe, in allowing him ſuch diet as I had abſolutely forbidden, and omitting what I thought of the utmoſt importance for her to obſerve, joined with his own untractableneſs.

As diet, with the manner of giving it, is ſo eſſentially neceſſary in the cure of diſeaſes, we cannot be too watchful, in ſeeing that our patients are ſtrictly conformable in that article, and that the nurſe does her duty in following directions; more eſpecially in ſuch a caſe as this, wherein the leaſt error or omiſſion may prove fatal.

A caſe of a ſimilar nature to the laſt, in which the operation was omitted without any good reaſon.

AN able Surgeon of my acquaintance was called to a vigorous young man, two days after having a deſcent of the *inteſtine*; in which condition he received a contuſion upon the teguments of the *Scrotum*, by a fall from his horſe.

AFTER various attempts to reduce the *inteſtine*, he propoſed the operation, and many of the faculty were aſſembled: the majority oppoſed it; other methods were tried, which alſo proved fruitleſs, and the patient died eight days after.

I HAPPENED at this juncture to be at the Surgeon's houſe, who told me, with much concern, how he had been over-ruled, and that he thought a fair opportunity had been loſt of ſaving the patient's life. Whilſt he was giving me this relation, news was brought of the patient's death, and he then deſired me to go with him to examine the ſtate of the parts. In this caſe, notwithſtanding the great length of time, we found no mortification upon the *inteſtine*, fallen down without *Omentum*.

WHAT probably miſled the Gentlemen in the conſultation, was the diſcoloration of the teguments of the *Scrotum*, ariſing from the contuſion occaſioned by the fall.

An old *Hernia* attended with ſingular circumſtances.

February the 3d, 1765.

A SURGEON of great character and experience in the City of *Norwich*, deſired me to viſit a man with him, upwards of fifty years of age, in whoſe caſe the *inteſtine* had done its office ſeveral years in the *Scrotum*, though not increaſed to a great bulk: but the bowel was now under ſuch a ſtate of ſtrangulation, that for many days he had been ſubject to the moſt dangerous ſymptoms, which attend an incarcerated *Hernia*; the Surgeon not being able to procure him relief, by the moſt rational means. At the bottom of the tumor, of an oblong form, about ſix inches in length, reſembling an *Hydrocele* of the *Tunica vaginalis*, we were very ſenſible of the fluctuation of ſome fluid, which we apprehended to be ſuch as is collected, in thoſe caſes, between the *herniary ſac* and the *inteſtine*; and, from our careful obſervation and examination, we were of opinion that the *Sac* was burſt. We deliberately conſidered every circumſtance to direct our judgment, in this very unpromiſing caſe for the operation, it being paſt all doubt, that there was a ſtrong coalition of the parts, which probably wou'd not admit of ſeparation with ſafety: however, as there was no proſpect of his living 24 hours longer in this condition, it was reſolved, as the laſt reſort, to make inciſion cautiouſly from the ring of the muſcle to the bottom of the tumor; by which it ſoon appeared, that our fears were too well founded, in reſpect to the coalition of the parts. Upon opening the tumor at the bottom, four or five ſpoonfuls of an aqueous fluid were diſcharged, and then the *inteſtine* preſented itſelf in a ſound ſtate. After proceeding thus far, it was farther agreed between us, to ſlit up the parts, as far as we found with our fingers, that the *inteſtine* was detached from the *ſac*, which was about two inches, and then enlarge the opening at the ring of the muſcle, with a view of ſetting the *inteſtine* at liberty there, as much as poſſible. Theſe ſteps were attended with ſucceſs greatly exceeding our expectations; for a few hours after he was dreſſed, and put to bed again, having the whole *Abdomen* well embrocated with warm oil, and a flannel cloth applied to it, he had many plentiful evacuations by ſtool; upon which all his threatening ſymptoms, as vomiting, &c. ſoon after vaniſhed, and returned no more. The wound digeſted kindly, a thin ſlough, like a *pellicle*, was caſt off the *inteſtine*, and granulations of fleſh enſued, that united with thoſe proceeding from the wound, which was perfectly healed, by the common treatment, in leſs than two months, with a firm, good *cicatrice*. The part was left in a much better ſtate than it had been for many years, ſo that he was able to follow his former laborious employment of ſerving a bricklayer; at which work I lately ſaw him, and he told me he found no inability in performing it, nor the leaſt pain or inconvenience in going to ſtool He cou'd not be prevailed on to wear a bandage, which was thought adviſable, as a ſecurity againſt an accident; finding himſelf ſo well, he was regardleſs, and ſaw no future danger.

I

The treatiſes written by Mr. *Pott* and Monſ. *Arnaud* upon Ruptures, attentively read and conſidered, will be found good guides to direct our practice in this important

I WAS willing here to ſubjoin a few hints, alluding to the antecedent caſes, and the obſervations which have been recorded by others, relative to *Herniæ*, ſubmitting them to the conſideration of my Brethren, in hopes that they may prove of ſome practical uſe.

WHEN the general rules have been ſtrictly obſerved, and all rational endeavors and attempts have failed, to reduce the contents of a *Hernia*, certainly the ſooner the operation is performed the better: but when we happen to be called too late, and there are evident ſigns of the *inteſtine* being in a mortified ſtate, by the tumor having loſt its renitence, &c. it appears to me upon reflection, very warrantable and reaſonable practice, ſupported by ſome of the caſes I have been mentioning, and the obſervations of others, to make an inciſion into the tumor, ample enough to evacuate the *Fæces* freely, which may effectually remove the ſtrangulation of the *inteſtine* at the *abdominal* ring;

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important part of Surgery: and what is ſaid upon the ſame ſubject, in the *Edinburgh* Med. Eſſ. and in the *Mem. de l'Acad. Roy de Chirurgie*, merit our particular attention, as well as what Mr. *Sharp* has to the ſame purpoſe, in his Critical Enquiry, to whom Surgery is greatly indebted.

ring, and then to treat the wound as a mortification, not being over buſy with the knife, in cutting away what appears to have loſt its vitality; but allowing nature to throw off the mortified ſloughs, by the granulations of fleſh, which may well ſupply the loſs of ſubſtance, as I have ſeen by ſuch management, far beyond my expectation. When it is a doubtful point, what condition the parts contained in the tumor are in, we muſt proceed with great caution in this operation, till we come at the *inteſtine*, and finding that mortified it is to be opened, and the ſtricture removed, by inciſion at the muſcular ring, ſhou'd not the evacuation of the *Fæces* do that effectually. The caſe is then to be treated as has been adviſed; for undoubtedly nature's operation is ſafeſt and moſt to be relied on, in ſeparating the dead parts from the living; though it will be proper to cut off the putrid ſloughs, as they grow looſe from the teguments, *herniary ſac*, &c. and it is eſſentially neceſſary to endeavour to prevent the falling of matter into the cavity of the *Abdomen*, by poſition of the body and otherwiſe; taking great care at the ſame time that the parts therein contained do not tend too ſtrongly downwards, as upon attention to this circumſtance alſo much depends.

THE few examples we have upon record of perſons ſurviving *Herniæ* that have burſt in a mortified ſtate, may be ſufficient encouragement to put in practice the meaſures now under conſideration, for very obvious reaſons: but before we do that, prudence teaches us to make proper *prognoſtics*, and to take all neceſſary precaution to defend our reputation, when we have to act in caſes ſo circumſtanced and precarious in their event; as people are too apt to condemn the Surgeon, when his practice does not ſucceed, be it ever ſo rational.

The two following caſes ſhew the neceſſity of ſometimes departing from the general rules laid down in the application of Truſſes in Ruptures.

A GENTLEMAN upwards of eighty years of age, who had long been afflicted with a Rupture, attended with a *Hydrocele* of the *Tunica Vaginalis,* had Truſſes made for him in the common manner in the City near which he lived, in *London,* and at *Paris*; but in the uſe of all of them the *inteſtine* frequently ſlipped down. I found, upon ſtrict examination of the parts, that the diſappointment aroſe from a thickneſs of the *ſpermatic* cord, on one ſide of the *abdominal* ring, by which the pad of the Truſs loſt its power of acting, ſo as to prevent the deſcent of the *inteſtine.* It appeared to me that nothing cou'd be done but to have a pad of proper dimenſions to enter and fill up the aperture preciſely; for by moderate preſſure with my thumb, I could effectually reſiſt the impulſe of the *inteſtine* in the ſtrongeſt efforts by the action of coughing. To effect this purpoſe, I adviſed the Truſs-maker who had not ſucceeded before, though a very ingenious workman, to affix ſuch a pad with a ſcrew, in the centre of a much broader ſurface, to confine it more effectually, made ſoft and eaſy: and this always anſwered the end perfectly well, when properly adjuſted and kept in the aperture.

The other was the caſe of a Gentleman between ſeventy and eighty years of age, who had a deſcent of the *inteſtine* on each ſide, which would not yield to a common Truſs, on account of the extraordinary thickneſs and make of the parts; but one formed upon the principles and mechaniſm of the preceding, very happily ſucceeded, and rendered the patient's life eaſy to him, preventing the great danger to which he had long been expoſed.

In both theſe caſes particular attention was paid, to make the parts of the truſs to which the pads were affixed, ſo concave as to reſt eaſy and ſteadily upon the parts.

An *Hydrocele* of the *Tunica vaginalis* taken for a ſcirrhous *Teſticle.*

AN elderly Gentleman conſulted me many years ago in this caſe, which had long been treated with mercurials both internally and externally. This method was not at all likely to ſucceed, had it been what it was ſuppoſed to be; but it appeared to me indiſputably an *Hydrocele.*

THE Gentlemen concerned did not agree with me in opinion as to the nature of the diſeaſe, nor was any alteration made in the treatment of it; but ſome months after, when the patient's conſtitution was much more injured by it, and the tumor greatly increaſed, I was again conſulted, and declared, that ſo far from ſeeing the leaſt reaſon to depart from my former opinion, I was now more confirmed in it. The patient then ſubmitted to a puncture being made with a lancet, by his Surgeon in ordinary, and more than a quart of a fluid like brown beer was diſcharged. He lived between twenty and thirty years after, contented with this palliative method. The operation was performed a great many times, and he enjoyed a good ſtate of health in all other reſpects, dying in a very advanced age, purely of the decay of nature.

The ſuſpenſion of every kind of tumor in this part, with a bag-truſs, is abſolutely neceſſary, as the pendulous ſituation of it weakens the contractile power of the veſſels, and impedes the aſcent of the fluids; and ſuch ſupport ſeldom fails of preventing or removing the pain of the loins, which is generally a concomitant of an enlarged teſticle, from a ſtretching and irritation of the *ſpermatics*.

I have ſucceeded in the methods propoſed for the radical cure of this diſeaſe, both by taking out an oval piece of the *Scrotum* and *Tunica vaginalis*, and by the application of a cauſtic the whole length of the tumor; but muſt give the preference to the former.——When it comes under conſideration which method to chuſe, the moſt ſtrict examination is requiſite, in order to diſcover whether the teſticle itſelf is in a ſcirrhous ſtate; and if that is a doubtful point only, it ſhou'd certainly determine us in favor of inciſion: for ſhou'd the diſeaſe prove ſo complicated, of which I have ſeen four inſtances, caſtration can be immediately performed; but to have that to do after the *eſchar* is ſeparated, wou'd be a very diſcouraging circumſtance to the patient, as well as very diſagreeable to the Surgeon, whoſe character as well as mind might ſuffer by it.

In an *Anaſarca* of the *Scrotum*, I have ſeveral times made inciſion on each ſide of it with great advantage, without ever having a mortification enſue; but there is reaſon to fear it from a languid circulation and abatement of native heat in a part ſo ſituated, which ſhou'd be well guarded againſt with internals, by the aſſiſtance of a Phyſician, which when it can conveniently be had ſhou'd not be precluded.

An *Hydrocele* taken for an *inteſtinal Hernia*, and treated accordingly.

A GENTLEMAN aſked my opinion for his child, about three years old, who was ſuppoſed to have a Rupture. Upon ſtrictly examining the parts, I diſcovered a tumor juſt below the rings of the *abdominal* muſcles, upon the *ſpermatic* cord, extending, and gradually dilating, almoſt to the bottom of the *Scrotum*. I did not doubt of its being an *Hydrocele*, and in all probability it was rendered worſe than it wou'd otherwiſe have been, by being treated as a Rupture; for, till it grew too big, it was forced into the *Inguen*, and there confined with a ſteel truſs.

I DIRECTED a fomentation prepared with diſcutients and aſtringents, to be uſed twice a day, and that the child ſhou'd take now and then a few grains of *Merc. dulc.* mixed with *Rhubarb*, and wear a bag-truſs. By this treatment the tumor was viſibly diminiſhed in a few weeks; but the Gentleman

tleman deſiring to take advice in *London*, aſked me to give him my opinion in writing, with the method I had taken. The Surgeons whom he there conſulted agreed with me, and the child was cured in a few months without altering the method.

A caſe of an *Hydrocele* of the *Tunica vaginalis* on each ſide, attended with ſome extraordinary circumſtances, in which caſtration was performed on one ſide and the operation for the radical cure on the other, according to Mr. *Douglas's* method deſcribed in his judicious treatiſe upon this ſubject.

W. A. of H. upwards of fifty years of age, naturally of a robuſt and healthy conſtitution, which he had much impaired by intemperance, eſpecially by drinking ſpirituous liquors; in a violent effort to raiſe a heavy weight, was ſenſible, to uſe his own expreſſion, of a cracking in his loins as if ſomething broke, and became immediately diſabled for walking. Soon after this accident he obſerved a ſwelling on the left ſide of his *Scrotum*.

AFTER ſome months he aſked my advice in this caſe, which appeared to me a true

Hydrocele of the *Tunica vaginalis*: I then opened it, diſcharging a quart of a limpid fluid, and he ſoon followed his ordinary employment again. Not long after this operation, the ſame diſeaſe appeared on the other ſide, and in about five or ſix months, I made a puncture with a common lancet on each ſide, introducing inſtantly a female *catheter*, and diſcharged from each about a pint and half of the ſame kind of fluid. In the ſpace of between two and three years, I performed the operation five times on one ſide, and four on the other, either by a lancet or ſmall *trocar*, which never confined him from his buſineſs more than a day or two.

About two months after the laſt operation, performed on each ſide, when the parts were again conſiderably diſtended with the fluid, he fell from his horſe in a drunken condition; which accident occaſioned a violent contuſion and *Ecchymoſis* upon the whole *Scrotum*, attended with great tenſion and moſt exquiſite pain of the *Abdomen*. Theſe ſymptoms were very threatening, and his life ſeemed to be in imminent danger; but repeated bleeding, lenient purgatives, and the antiphlogiſtic method, conſiſting of medicines and diet, relieved him: ſtill there was great reaſon to fear, from the remaining complaints and appearances, that the parts within the *Scrotum* had greatly ſuffered.

When the parts were filled again I made punctures as uſual, and on the ſide where I performed the operation firſt, the lymphatic fluid was mixed with blood, but on the other ſide it appeared as before. From what I now obſerved, I thought there was good reaſon to propoſe the method for the radical cure, which was attempted with the approbation of ſeveral able Surgeons, on *Auguſt* the 24th, 1756.

Upon cutting the teguments and *Tunica vaginalis*, I found the latter was grown almoſt cartilaginous and near half an inch thick. The *teſticle* itſelf appearing decayed, like ſoft rotten liver, I altered my original deſign, and, with the concurrence of my brethren, removed it, as well as the *Tunica vaginalis*, taking up the *ſpermatic* artery with the needle and ligature, without including it in the thickened cord. I then cut off as much as I cou'd of the *Tunica vaginalis* on the other ſide, which was alſo greatly thickened, but the *teſticle* included in it was not affected. In the courſe of the cure a very thin ſlough, like a *pellicle*, was caſt off the *Tunica albuginea* by granulations of fleſh, which uniting with thoſe proceeding from the other parts, a good, ſmooth *cicatrix* was induced, upon that incarnation: and afterward he did not want the power of procreation.

THESE operations were tedious and painful, and hazardous in their event; but the ſymptoms in conſequence of them were favourable beyond expectation. Emollient clyſters frequently repeated, bleeding, pouring warm oil often upon the *Abdomen*, covering it with flannel and keeping bladders of warm water conſtantly over it and the dreſſings, gave him very ſenſible relief, and probably prevented bad accidents. Nothing happened to obſtruct the cure, by the common treatment, and he was diſmiſſed the houſe in ſeven weeks, able to follow his occupation without any inconvenience. He now enjoys perfect good health and ſtrength, for a man of his age, often taking long journies on foot without fatigue.

The conſtitution, ſtate and condition of the patient, who is about to undergo any capital operation, ſhould be well conſidered before hand, that what is amiſs may be rectified as far as poſſible, by diet, medicine, &c. in order to prevent accidents in conſequence of it; as well as early care and conſtant attention paid to every circumſtance after the operation: nor ought we ever to forget how eſſentially neceſſary it is, that peace and tranquility of mind ſhou'd be preſerved in our patients; to which end we ſhou'd ſtudiouſly endeavour to ſtrengthen their confidence in us, by our addreſs and behaviour in all reſpects.

A caſe of an enlarged *Teſticle* from a blow, which ſucceeded happily.

March the 17th, 1755.

MR. *E. W.* of *M.* a man of a very robuſt conſtitution, aged about thirty, ſent for me on this occaſion, a fortnight after the accident. The tumor was of a large ſize, inflamed, hard and painful, accompanied with a fever; and the *ſpermatic* cord was alſo greatly enlarged and rigid. I let him blood, and repeated that evacuation occaſionally, ſeeing his blood was in a ſizy ſtate; gave him lenient purgatives, and nitrous medicines, adviſed an exact regimen, with the very liberal uſe of diluents, and directed a fomentation ſhou'd be uſed twice a day, with a portion of *Spirit Mindereri* in it, and *cataplaſms* to be applied, prepared with oatmeal and the fomenting liquor, adding a little *Ol. Olivar.* to prevent ſtiffneſs, and ſupported the part with a bag, ſtrictly enjoining him to keep his bed, as an horizontal poſition wou'd moſt favour the retrograde motion of the fluids through the diſeaſed parts, in the meandrous windings of their canals.

By this treatment all his complaints were ſoon abated; and when I found him in a good condition to bear *Mercury*, which was in about three weeks, I had recourſe to that powerful medicine, though I had not the leaſt reaſon to ſuſpect any thing venereal in the caſe. I gave him four or five grains of *Merc. dulc.* rubbed with *Flor. Sulphuris* for four or five nights ſucceſſively, and a lenient purge the next morning, ſtill continuing the nitrous remedies, topical applications, &c.

After perſevering about a month in this method, the *teſticle* was greatly diminiſhed, the inflammation and pain quite gone, and but little hardneſs remained; I then directed inſtead of the other external applications, a mercurial liniment ſhou'd be well rubbed in twice a day, and that he ſhou'd purge gently at due intervals, to prevent a *ptyaliſm*, which reduced the *teſticle* to its natural ſize, and entirely removed the induration in two months.

A Cancer both upon the *Teſticle* itſelf and the *Epididymis*, occaſioned by a blow, in which caſe caſtration ſucceeded.

November the 9th, 1756.

I WAS deſired to aſſiſt in this operation, performed upon a Gentleman about 50 years of age, naturally of a ſtrong, healthy conſtitution.

WE found the *ſpermatic* cord in a much better condition than we expected, by examining it before the operation; but the *ſpermatic* artery was exceedingly enlarged, which we took up with the needle and ligature, without including the cord. The whole *Teſticle* and *Epididymis* were in a true cancerous ſtate, floating in a conſiderable quantity of lymph, contained in the *Tunica vaginalis*.

THE ſymptoms after the operation were very favourable, the caſe terminated happily, and the patient continues perfectly well, though the operation was unreaſonably delayed, abſolutely againſt our earneſt advice, but he wou'd not conſent to it ſooner, notwithſtanding our remonſtrances, to ſhew him the increaſe of danger by deferring it.

I have been concerned in ſeven operations, performed upon patients of my own and others, wherein the *ſpermatic* artery was taken up alone, after a diſſection of the ſheath, in which no threatening ſymptoms enſued; but I have obſerved many bad accidents in conſequence of tying the whole cord, even cauſing the death of the patients, as I verily believe; therefore I cannot forbear ſtrongly recommending the diſcontinuance of that practice in caſtration, to the conſideration of my Brethren; and have inſerted two caſes to enforce it.

A caſe ſhewing the advantage of taking up the *ſpermatic* artery alone, with the needle and ligature, inſtead of tying the whole cord as is generally practiſed in caſtration.

June the 4th, 1760.

A REPUTABLE tradeſman in the City of *Norwich* had a rotten *teſticle*, proceeding from a contuſion by a fall twenty years before, which had long been accompanied with a *Bubonocele*, a *Fiſtula* in *Perinæo*, thro' which the urine conſtantly paſſed at two apertures, and a *Procidentia Ani.* In this miſerable ſtate, I was joined in conſultation with a Phyſician and Surgeon of eminence, the reſult of which, after deliberately conſidering every circumſtance, was to propoſe caſtration, and to attempt, at the ſame time, to cut away the calloſity of the *Fiſtula.* It was approved by the patient and his relations, and undertaken, after due preparation, and making a doubtful *prognoſtic*, to ſecure our reputation as well as we cou'd, in a caſe ſo diſmally circumſtanced.

In this operation the ſheath of the cord was ſlit with the point of the knife, and then farther opened with a pair of very ſmall crooked ſciſſars, by which ſteps the operator ſhewed the veſſel fairly, and I then took it up, without any difficulty, in the uſual manner, with the needle and ligature, including only a little *cellular* membrane in it. No ill accident ſupervened, and the operation ſucceeded ſo happily, that the patient was perfectly cured of all his complaints, remaining ſo to this day.

A caſe manifeſting the diſadvantage, and dire effects, of making a ligature upon the whole *ſpermatic* cord in caſtration.

THE year after the laſt mentioned caſe, I was concerned with a Surgeon who choſe to tie the whole cord, having never ſeen the contrary method practiſed; but two days after the operation, I was ſent for in great haſte, the patient having ſome very alarming ſymptoms; and the Surgeon, who practiſed midwifery, was at that juncture ſo cloſely engaged, that he cou'd not attend him. I found the patient inceſſantly ſtraining to vomit, accompanied with a hickup, in a high fever, his *Abdomen* very tenſe, inflamed and painful, particularly complaining that the pain extended quite from the ligature, for which reaſon I cut it directly, no blood enſued, and he was ſenſible of ſome inſtant relief, upon removing that ſtricture. I then took away a large quantity of blood, repeated that evacuation ten hours after, as his pulſe continued ſtrong, and he was of a ſanguine, plethoric habit, ordered a common clyſter to be given immediately after the firſt bleeding, and a laxative mixture to be taken by little and little; that warm oil ſhou'd be well rubbed all over the *Abdomen*, keeping a flannel or a bladder of warm water conſtantly at it, and that he ſhou'd drink ſoft, diluting liquors freely, as ſoon as his ſtomach was in a condition to bear them. The vomiting, hickup, and all the train of threatening ſymptoms ſoon abated, every thing went on well afterward, and he was perfectly cured, without any future bad accident. The caſe requiring this operation, was a large ſcirrhous *teſticle*, juſt making the tranſition into the cancerous ſtate.

I AM inclined to think, if the *ſpermatic* cord was to be totally divided, and wou'd admit of being left long enough, an aſſiſtant having firm hold of it, with his fingers and thumbs, upon compreſſes of cloth above and below, to prevent the veſſels from ſlipping up in the ſheath upon the diviſion, the operator might take up the artery with the needle and ligature at the end. An accident once happened in an operation, wherein I was concerned, requiring ſuch ſteps, which ſucceeded very well, though the artery was larger than common. In general this veſſel is but ſmall, and perhaps, in ſome inſtances, the *hæmorrhage* might be ſtopped by compreſſion alone againſt the *Os pubis*; however, it is better not to run ſuch a riſk at any time. ——By inadvertently cutting the cord too ſhort, or when that circumſtance proves unavoidable in this operation, the veſſels may retract too far, and even into the *Abdomen*; great danger of which I once ſaw and inſtantly prevented. This merits particular attention.———Beſides the danger I have been repreſenting that attends tying the whole cord, which is compoſed of many tough ſubſtances, I have ſeen great inconvenience ariſe from the ſlowneſs in digeſting off the ligature, in the courſe of curing the wound.

Of a *Circocele* that reſiſted all other methods of cure, and wou'd yield to nothing but caſtration.

December the 19th, 1758.

R. W. of T. received an injury both upon the *lumbar* and the *inguinal* region, by a piece of timber falling upon him in a ſtooping poſture.

BLEEDING, gentle purging, and the common applications in recent contuſions, &c. gave him ſo much relief at firſt, as to enable him to follow his buſineſs as a maltſter again, in a little time; but thoſe means did not entirely remove his pain, which was moſt upon the *ſpermatic* cord.

TWO or three months after, he applied to me again, his labor proving more than he was able to bear, complaining of a violent pain of his loins and the *teſticle*, as well as the *ſpermatic* cord, which was very much thickened and knotted, the *teſticle* itſelf diminiſhed and the *Epididymis* enlarged; and he was now admitted into the Hoſpital under my care.

NOTWITHSTANDING all the applications and methods both internal and external, in purſuance of the joint opinion of Phyſicians and Surgeons, the pain increaſed, and at length became ſo inſupportable, that he cou'd get no reſt night nor day, without the conſtant uſe of opiates in large doſes; from which conſiderations caſtration was reſolved upon. The operation was performed *July* the 20th, and he was diſmiſſed perfectly cured *Auguſt* the 29th.

A caſe of a fungous excreſcence upon one of the *Nymphæ*, from which proceeded a profuſe *hæmorrhage*, bringing the patient's life into imminent danger.

IN the year 1760, I was deſired, with another Surgeon, to examine the ſtate and condition of a Lady of a very delicate habit, about thirty years of age, and to make report to two Phyſicians, who attended her in a bad fever, accompanied with very threatening ſymptoms. They had been informed of a profuſe *hæmorrhage*, ſuppoſed to be *uterine*, with the additional alarming circumſtance, that it was apprehended the *Vagina Uteri* was mortified; both which were ſtrangely miſrepreſented. We found an excreſcence about the bigneſs of a ſmall walnut, like a fungus, upon one of the *Nymphæ*, from whence the *hæmorrhage* had proceeded ſome time, and weakened the patient exceſſively; and from ſome part of the excreſcence having a livid aſpect, aroſe the apprehenſions of the mortification. We made our report accordingly, that the effuſion of blood was not *uterine*, nor the *Vagina Uteri* in a mortified ſtate, declaring it was our opinion, that the excreſcence might ſafely be extirpated by inciſion, and the *hæmorrhage*, in all probability, reſtrained by that means. The reſult of our conference with the Phyſicians on this occaſion, was to have the operation performed, with the patient's free conſent; it was propoſed to her, ſhe readily conſented, and it was then done directly, ſtopping the *hæmorrhage* in conſequence of the operation by the needle and ligature. The wound was treated in the common manner, and ſhe lived ſome time after it was perfectly healed, without any return of bleeding, which event anſwered the expectations we gave the Phyſicians; but her other complaints wou'd not yield to their judicious preſcriptions.

It was imagined ſhe might have ſuſtained an injury in a hard labour, ſome months before, to give riſe to the excreſcence; but this point cou'd not be determined with any certainty.

A *Fiſtula* in *Ano* cured in a ſingular manner, by making an opening into the *Vagina Uteri.*

IN the year 1761 I attended a worthy Magiſtrate in the City of *Norwich*, in the moſt extenſive *Fiſtula* in *Ano* I ever ſaw cut, which ſo happily ſucceeded, that he was perfectly cured by the operation, even beyond expectation, his conſtitution being much impaired; in which caſe the *bark* was of ſingular ſervice.——During this attendance, as an Auxiliary, his Surgeon in ordinary deſired me to viſit a woman, between 30 and 40 years of age, who had been his patient more than ſix months, in a ſimilar caſe, diſcharging an immoderate quantity of a fetid *ſanies*; and ſhe was much emaciated, with a kind of hectic from abſorption of ſuch putrid matter, and loſs of appetite.

The Surgeon had opened ſeveral *ſinuſes* in different directions, and treated the caſe judiciouſly; but one remaining pretty high up the *Rectum*, tending directly towards the *Vagina Uteri*, from whence the matter was diſcharged, that he durſt not venture to open, perplexed him very much; on which occaſion he deſired me to examine the ſtate of her caſe with him. By introducing a probe, properly curved, into the *Sinus*, and my finger into the *Vagina*, I found it terminated juſt above the *Carunculæ myrtiformes*. I propoſed to his conſideration, under theſe circumſtances, the drawing a ſeton through the *Rectum* into the *Vagina*, to which he readily agreed, and the operation was eaſily performed as has been mentioned, with an inſtrument a little more curved than a *tonſil-needle* having an eye towards the point (*a*). It ſucceeded to our wiſh; the diſcharge was ſoon obtained, at this depending opening in the *Vagina*, with little or no inconvenience. After continuing the ſeton about three weeks it was left out, and the cure completed without any farther trouble; but a deſiccative injection was made uſe of ſome time, both into the *Rectum* and *Vagina*.

THIS

(*a*) See Treatiſe on Wounds.

THIS woman ventured to marry ſoon after ſhe was cured, and brought forth a ſtrong, healthy child in leſs than a year; ſince which ſhe alſo remains perfectly well.

See Mr. *Pott's* treatiſe lately publiſhed upon this ſubject.

A caſe in which the *Placenta uterina* was covered with Oſſifications, communicated to me by Mr. *Donne*, which we examined together, and then ſent to Doctor *Hunter*, as a curious Anatomical Preparation.

A GENTLEWOMAN about twenty-five years of age, of a delicate but healthy habit, ſent for me on the 6th of *November* 1761, after having been in labour ſome hours. On examination I found the *Os Uteri* conſiderably dilated, the membranes protruding almoſt to the *Os externum*, which I broke immediately, as there was a conſiderable flooding. The head of the child came down into the *Pelvis* in a pain or two, and ſhe was ſoon after delivered of a ſtrong healthy child. The flooding which had ſtopped by breaking the membranes, and the child's head deſcending low down into the *Pelvis*, returned again with ſo much violence, that I judged it neceſſary to bring away the *Placenta*. Upon introducing my hand into the *Uterus*, I laid hold of the *Placenta* entirely ſeparated from the *Uterus*, every part of which in contact with my hand, was ſo full of ſharp points, that I brought it away with pain to myſelf: theſe ſharp points were innumerable oſſifications, forming a fine net-work reſembling the fibrous coat of a melon, which covered the whole ſurface of the *Placenta*, that was attached to the *Uterus*. My patient recovered in the uſual time without any particular or bad ſymptoms, or more violent after pains or diſcharges than ſhe had before experienced, this being her ſecond child.—— *October* the 4th, 1763, I attended the ſame patient again, and then delivered her of a healthy child. The *Placenta* had now oſſifications ſufficient to prove the fact, which determined me to ſecure it; the firſt to my great mortification, and contrary to my requeſt, having been deſtroyed. I have only to add farther, that about four months ſince I brought away from the ſame perſon, a third which had ſome oſſifications, theſe indeed were ſo trifling that they had paſſed unobſerved; but the extraordinary appearance of the firſt, the ſame again in a leſs degree in the ſecond, excited my curioſity to examine minutely the laſt.

Doctor *D'Urban* tells me, he once met with a caſe, where the *Placenta* was ſeparated with uncommon difficulty; and upon examination found it beſet with cretaceous and oſſified ſubſtances.

A caſe in which the *Os Coccygis* paſſed through the *Rectum* in a very extraordinary manner.

In *July* 1760.

A GENTLEMAN's child, two years and a half old, naturally of a ſtrong healthy conſtitution, had been treated ſome time as in a worm caſe, with a variety of medicines for that purpoſe; but her complaints increaſed till ſhe voided what was ſuppoſed to be a ſtone, after taking a purge. A Phyſician was conſulted next day, and had the following hiſtory of the caſe related to him, with what has been mentioned, by the mother of the child, and the ſervant who had the care of her. They ſaid, for ſome months paſt, that they obſerved without any evident cauſe the child loſt her florid and natural complexion, grew wan and pale, extremely penſive, fretful and uneaſy, and upon every motion, or being taken up, or ſtirred in any manner, cried out and ſcreamed, as if in violent pain. From being fond of exerciſe and playful, ſhe never liked to move, and when obliged to do ſo, always moved with uncommon ſlowneſs and caution, as if under ſome extreme uneaſineſs. Some days before ſhe paſſed, what was thought a ſtone, ſhe ſeemed to be conſtantly in great agony, upon going to ſtool, became exceedingly pale and faint, requiring to be laid upon a bed for ſome time after, to recover her.

When the Phyſician examined the ſubſtance, he was convinced of its being a bone, at firſt ſight, and did not doubt of its being the *Os Coccygis*. He ſtrictly inquired whether it was certain, that the child had voided this bone by ſtool, and the anſwer was; ſhe had taken a purge againſt worms, upon which account, after every motion, her ſtools were carefully examined, in order to obſerve if any worms came away, and that when the ſervant found it in one of them, ſhe immediately ſhewed it to her miſtreſs.

After hearing this relation, the Phyſician deſired the child might be brought to

Norwich to have the parts examined by a Surgeon, as ſoon as ſhe cou'd bear the journey; and I was then deſired to attend her with the Phyſician. The ſubſtance of the preceding relation was repeated, and upon a view of the bone, I cou'd not heſitate a moment, in pronouncing it to be the *Os Coccygis*, having loſt its point. The *Anus* appeared a little inflamed and excoriated, but the child bore the introduction of my finger into the *Rectum*, and moving it there, in every direction, without complaining, where I found nothing amiſs, any more than if it had never been injured; and this examination was made about a week after the expulſion of the bone. The ſlight inflammation and excoriation, at the verge of the *Anus*, were ſoon cured, by the application of *Cerat. alb.* and *Unguent. ſaturnin. mixed*; and ſhe has never ſince had the leaſt complaint in theſe parts; but what ſhe ſuffered, on this occaſion, has irreparably injured her conſtitution, and health in general.

As it appeared to us highly probable, we ſuſpected this diſeaſe might proceed from a hurt, by a violent fall upon her breech, the ſhock extending to the juncture of the *Os Coccygis* with the *Sacrum*; and, in conſequence of which, that an inflammation and *abſceſs* might enſue, though they paſſed unobſerved; but our interrogations cou'd not bring ſuch an accident to light.

Nature alone wrought a very notable cure in this caſe, the ſingularity of which made ſome Gentleman of the faculty doubt of the fact, and too haſtily expreſs themſelves concerning it; but the authenticity of the evidence inconteſtibly ſupporting its reality, muſt ſilence all vague conjectures.

A Dropſy ſituated under the *Rectus Cruralis*, and between the *Vaſtus internus* and *externus* muſcles, immediately above the knee, which had long been looked upon as an incurable White-Swelling.

February the 2d, 1753.

H. C. aged 45, was brought to me by the Officers of the Pariſh of T. and gave me the following account of himſelf. That he firſt took notice of a ſwelling about ſix years before, upon the fore-part of his thigh juſt above his knee, attended with a dull ſenſation of pain; that the ſwelling gradually increaſed, and, for a year or two paſt, that the pain had ſometimes been very acute. He alſo told me, that the methods which had been taken, by thoſe under whoſe care he had been, rather increaſed his complaints, and that they adviſed him not to ſuffer it to be opened by any means.

From my obſervation and experience in four caſes, which appeared to me of a ſimilar nature to this, wherein I had ſucceeded, I did believe there was a lymphatic fluid collected between the muſcles, which was abſolutely neceſſary to be evacuated by opening, having been ſo long extravaſated, that there was no probability of its ever being abſorbed; I therefore did not at all heſitate about adviſing to have inciſions made into the tumor.

He was of a lax habit, and his health in general not very good, but when I had corrected a little diſorder in it, which appeared proper to be attended to, I opened the tumor both on the inſide and outſide of the limb, by inciſions two or three inches in length, aiming to make them correſpond with the inſterſtices of the muſcles, and diſcharged more than a pint of inſpiſſated lymph: I then drew a ſeton thro', and continued it 'till I thought the cavity might be a good deal contracted, at which time I left it out, touched the edges of the wounds with *Cauſt. lunare* repeatedly, ſo as to prevent their uniting too ſoon externally, dreſſed ſuperficially in the common manner, and applied a laced knee-piece, with an eaſy compreſs affixed to it, to reſt upon the top of the thigh, the full extent of the cavity. The diſcharge gradually leſſened, and quite ceaſed in two months, the patient continuing perfectly well, with a free motion of the joint, and can walk many miles without pain or inconvenience.

In two of the caſes which I have mentioned, the fluid appeared alſo below the knee; on the inſide of one of them, and on the outſide of the other, at the bottom of the *patella*, where I made openings as well as above and found they communicated.

THIS diſeaſe has been taken for a dropſy of the joint, in which the fluid is contained under the burſal ligament, but there is a very material difference between theſe diſeaſes in point of danger, tho' of great apparent affinity; for the acceſs of the air upon opening, ſoon changes the ſoft into an acrimonious fluid, productive of dreadful conſequences when in the joint. The more manifeſt fluctuation of this fluid, and it's extending higher up the thigh, when it's reſidence is between the muſcles, are Criterions by which we may diſtinguiſh one from the other.

Since the firſt edition of my Obſervations, I have received accounts from two Surgeons of the beſt character relative to this matter. One of them expreſsly ſays he has met with two ſuch caſes, which he cured by opening, one of which was deemed an incurable white-ſwelling, by two Surgeons, under whoſe care the patient had been a conſiderable time; and he aſſured me he had not remarked this ſpecies of tumor before I deſcribed it.——The other Gentleman informed me that a perſon was committed to his care, with a large tumor upon his knee, in which caſe he apprehended the fluid was contained under the *burſal* ligament in the joint, but upon opening it where it was moſt prominent, juſt above the knee and beneath, on the outſide of the *patella*, he diſcovered his miſtake, as he ingenuouſly confeſſed, and cured his patient.

A ſimilar caſe to the laſt mentioned, cured in its recent ſtate without opening.

December the 28th, 1758.

D. G. a farmer's ſervant of N. one of the Perſons alluded to in the preceding chapter, who was cured as there directed ſix Years before, applied to me now concerning a tumor upon his other knee of a ſimilar kind, when it had not been of more than a month's duration; but the other when I firſt ſaw it, had been gradually increaſing above three years. A Phyſician of eminence, who had aſked me, when another ſuch a Caſe came under my notice, to give him an opportunity of ſeeing it, and a Surgeon who had ſeen the former caſe, examined this tumour with me the very day he applied to me, and the fluid then appeared to us to have a conſiderable degree of tenacity, by its ſluggiſh motion under our fingers.

Considering its recent State, I was willing to attempt the cure, without opening the tumor; and after bleeding and purging to empty his veſſels and bowels, I purſued the following method.

I wrapped the whole joint, and about half-way up the thigh, round with brown paper, ſeveral times doubled, moiſtened in *Spirit. Mindereri* warmed, putting a laced bandage over it, ordering the paper ſhould be conſtantly wetted as it grew dry, with a ſpunge dipped into that Liquor, or a Solution of crude *Salt Ammoniac* in vinegar, about half an ounce to a pint, always uſing it moderately warm. I gave him a draſtic mercurial purge every fourth or fifth Day, and now and then an antimonial vomit, kept him to a ſtrong Decoction of *Guaiacum* with *Sal diuret.* diſſolved in it, for his common drink, and, directed a proper attenuating diet, which method agreed, and he bore it very well.

In about a fortnight there was an apparent alteration in the conſiſtence of the fluid, by its eaſy undulatory motion, like water in a bladder, even with the lighteſt touch of the fingers; the abſorption then, evidently began, and the tumor was entirely diſperſed in a little more than a month, the fluid gradually decreaſing every day.

THE topical remedies cauſed ſmall veſicles, two or three times, during the cure; but they were ſoon healed by an epulotic cerate, and the Patient able to bear thoſe applications again.

IN order to recover the elaſticity, or tone of the relaxed parts, I adviſed the cold-bath, and pumping upon the knee a few Minutes every morning; which had a good effect, and recovered the perfect uſe and ſtrength of his limb, enabling him, in a ſhort time, to walk about from morning till night, as his laborious buſinſs required, without any complaint after ſuch exerciſe: And he ſtill remains perfectly well, not having the leaſt weakneſs or impediment in the Motion of either knee.

I have cured ſeveral bagging tumors upon the knee directly over the *patella*, and at the elbow over the *Olecranon*, unattended with pain, or much hindrance to the motion of the reſpective joints, by the following embrocation well rubbed in warm twice a day, keeping a compreſs of cloth, or brown paper, moiſtened with the ſame conſtantly upon them, with moderate bandage of a roller, or laced piece which is preferable.

R *Aceti acerrimi* ℔ *ſs*
Sal. ammon. crud. ℥ *ſs*
Liniment. volat. ℥*ij. m. f.*
Solutio.

This application I have alſo found a very powerful attenuant upon other occaſions.

I know not what ſpecific name to give this tumor; but it appears to be a diſeaſe of the *membrana celluloſa*, and of an œdematous kind.

In ſeveral inſtances, in an univerſal *Anaſarca* to a great degree, I have ſeen very extraordinary effects attend the application of the *ſcarificator* to the legs and thighs, or legs only; repeating the operation, as occaſion required, and applying the *ſcarificator* as often at a time as appeared neceſſary.——This method I firſt practiſed upon the authority of *Monſ. Le Dran.* See his Operations in Surgery.

I believe a *Scarificator* made with larger and fewer lancets, ſtanding at a greater diſtance than in the common one, and ſo contrived as to be raiſed higher occaſionally, would be more applicable to this purpoſe, as the lancets in that will not, in ſome caſes, penetrate deep enough into the *cellular* membrane.

A true *Schirrhus* upon the thigh extirpated without Succeſs.

MR. *Donne* of *Dereham*, whom I have already mentioned, deſired me to be preſent, ſome years ago, at the extirpation of a painful, moveable and exceeding hard tumor, which had been gradually growing about five Years to a large ſize, ſituated under the *Muſc. rect. crural.* with its fixed point towards the knee between the *Vaſtus internus & externus*.

The patient was twenty-five years of age and his conſtitution not remarkably bad. It appeared doubtful to us in conſultation what was beſt to be done in this caſe; but he wou'd not hear of the loſs of his limb, which indeed ſeemed rather more adviſeable than extirpation of the tumor only.

The tumor was well extirpated, which weighed thirteen ounces, and was evidently glandular; the outſide of it was white, ſmooth and almoſt as hard as a cartilage, and the inſide reſembled an hard apple when cut; which appearance denotes an ill character.

The ſymptoms after the operation were not at firſt unfavourable, but the diſorder ſoon appeared of a cancerous nature as was ſuſpected, and killed the patient; for he would not take the only chance that remained to preſerve his life, which was amputating the limb.

Of excreſcences, &c. with a cancerous aſpect.

MANY years ago, in a young ſubject, I extirpated a large excreſcence of this kind, which filled the orbit of the eye; and I was obliged to remove the whole of the eye with it. The operation ſucceeded very well, and nothing occurred in it, or afterwards, worth particular notice.

I HAVE ſince extirpated a ſmaller from the eye of an elderly Gentleman, in conſequence of its being thought adviſable in conſultation, to remove it by inciſion; which appeared ſimilar to that in the ſecond caſe in *Hildanus*. The eye remained eaſy about three years after, and then another excreſcence ſprouted from the oppoſite corner of it; but as the ſucceſs was now deemed very precarious, he reſolved not to ſubmit to another painful operation, contenting himſelf with a gentle palliative method. Thi diſeaſe grew gradually worſe, and terminated in a true cancer, affecting the whole globe of the eye before he died.

Several years ago a woman upwards of ſeventy, ſhewed me a large ſubſtance upon her head, apparently of this nature, proceeding from what ſhe called a wen, in which ſtate I never ſaw it. The part upon which it was ſituated encouraged me to propoſe the operation, as I cou'd eaſily take ſuch a circumference into the ſound parts as wou'd be moſt likely to eradicate it effectually. I extended the inciſion near an inch beyond the baſis of the excreſcence and left the ſkull quite bare. The cure of the wound was effected without any difficulty, and the part remained perfectly well as long as ſhe lived, which was about ten years.

Two years ago I was deſired by Mr. *Salmon*, a Surgeon of character at *Wickham-Market* in *Suffolk*, to give my opinion concerning a cancerous breaſt, which had been ulcerated about a year, without making any great progreſs, and was not much fixed to the ſubjacent muſcle: and alſo in a large cancerous excreſcence upon the cheek of another patient, a gentlewoman advanced in years, which had been ſuperficially removed twice by ligature; but ſoon ſprouted up again, and was now much larger and apparently worſe conditioned than ever. My advice in theſe caſes was to extirpate the breaſt and excreſcence, according to the hints given in the chapter of Remarks and Reflections upon cancerous tumors, &c. and both operations ſucceeded very happily, which were then performed when I was preſent.

I HAVE been concerned in the amputation of four *Penes*, three of which on account of enormous fungous ſubſtances upon the *Glans*, from venereal cauſes. We met with no difficulty in ſtopping the *hæmorrhages*; after fixing the ſkin, by a ſoft narrow roller turned three or four times round the member, compreſſion was effectually made with the fingers and thumbs of an aſſiſtant, whilſt the operation was performed by making the double inciſion ; and two or three veſſels in each caſe were taken up by the needle and ligature. We found no occaſion for a *tourniquet* in theſe operations, nor a *canula* in the cure, both which may have their uſe in ſome caſes. The patients were put into proper courſes and cured without much trouble.

The following letter, relative to cancerous diſorders of the eye, was written in anſwer to one, which I received from a Gentleman of character in the faculty at *Plymouth*.

Dear Sir,

AT the time I received your letter, I happened to be cloſely engaged in buſineſs, or wou'd have anſwered it directly.

THE patient, concerning whoſe caſe you deſire more particular information, than appears in my obſervations, was a girl between ſixteen and ſeventeen years of age, apparently healthy in all reſpects, except the excreſcence upon her eye. When I was firſt conſulted about it, I was informed it had been gradually growing two or three years, from the greater *Canthus* of the eye, but that it had lately made a ſwift progreſs. It now overſpread all the external ſurface of the eye, indeed the whole globe of the eye ſeemed affected, though it was ſtill pretty eaſily moveable in its orbit, with our fingers, whence it projected more than an inch: and there appeared no proſpect of ſucceſs, by any other means than removing the whole eye, by the knife, an operation very precarious in its event, in which light I repreſented it to the perſons nearly concerned: however, being earneſtly deſired by them, and the Surgeon who had long been concerned in the family, I was induced to undertake it. By the conſtant ſtricture of the eye-lids, a neck was formed in the excreſcence, about which I firſt tied pieces of narrow tape, crucially, in order to draw the eye upwards, downwards or forwards, occaſionally, as I cut, whilſt my aſſiſtant kept the eye-lids out of the way of the knife. I began the inciſion at the inferior part, diſſecting all away as clean as poſſible, quite round down to the bottom of the orbit, dividing the *optic* nerve. The *hæmorrhage* was not profuſe, and was eaſily reſtrained by filling the orbit with ſoft, dry lint, and making moderate preſſure upon it with the hand: over the lint was applied a plaſter of *Unguent. tripharm.* with eaſy compreſs and bandage; injoining the obſervance of a ſtrict regimen, and no bad accident happened in conſequence of the operation. The lint was ſuffered to become quite looſe before it was removed, the wound digeſted kindly, and was healed by the common treatment. Afterwards ſhe kept the part conſtantly covered with a black ſilk plaſter, over a little ſoft lint or cotton. In order to prevent future appearances of the diſeaſe as much as poſſible, ſhe was put into an alterative courſe and kept ſtrictly to it a long while; had a ſeton drawn into her neck, and when that was worn out, ſuper-ſcapulary *fontanels* were opened. She lived ſome years without any freſh appearance of the diſorder, and was then carried off by an epidemic fever.

THESE are all the occurrences I can recollect, concerning this caſe, which, I think, may be worth your notice, and I wiſh they may anſwer any good purpoſe, if you have a patient under ſuch circumſtances, and find reaſon to practiſe the method I have deſcribed; but certainly ſuch caſes are to be looked upon as very precarious in their event.——Indeed I am afraid we ſhall never arrive at the neceſſary degree of knowledge, to enable us to judge with any certainty or preciſion, what will be the event when we undertake the extirpation of any tumor or excreſcence, which has a carcinomatous aſpect; therefore we cannot be too cautious in our prognoſtics, upon ſuch occaſions, in defence of our reputation, which ſtands upon ſlippery ground; nor be too well adviſed before we engage in ſuch doubtful and important matters: for nothing can effectually protect us without ſucceſs, as people in general are too apt to judge and determine from events, without ſufficiently conſidering circumſtances, and making allowances for them in favor of the Surgeon: But, to be neither raſh nor timerous becomes the character of a Surgeon; and, after having taken the moſt prudent meaſures to guard againſt cenſure, I wou'd not have him diſcouraged from acting, even in the moſt dangerous caſes, merely for fear his reputation ſhou'd ſuffer, if he ſhou'd not ſucceed in his attempt.—I am going beyond the limits of a letter, and ſhall conclude with a ſhort hiſtory of a caſe pertinent to this ſubject.

About ten years ago, a very able Surgeon of my acquaintance aſked me to give him my opinion concerning a patient of his, near 70 years of age, who had too long neglected ſuch a diſeaſe of his eye. It had the appearance of a hard, fleſhy ſubſtance, was of a dark, red color, and pyriform figure, projecting at leaſt three inches beyond the orbit; and it was extremely painful, attended with ſuch an exquiſite ſenſibility, that the leaſt touch of the finger, upon any part of its ſurface, was almoſt intolerable, giving him, at the ſame time, much pain on the *ſinciput*. He kept it covered with a ſoft *cerate*; it wou'd not bear to be expoſed to the air, without immediately cauſing a great increaſe of pain, ſtill aggravated when the rays of the ſun fell upon it. Under theſe deplorable and diſcouraging circumſtances, in a caſe which appeared to us truly cancerous, we cou'd not, by any means, think it adviſable to propoſe an operation. We adviſed the moſt gentle applications, the obſervance of an exact regimen, with the uſe of *opiates*, occaſionally, to aſſwage the pain; and a few months cloſed the miſerable ſcene. We cou'd not obtain leave, after his death, to inſpect and examine the tumor itſelf, and parts adjacent, by opening the ſkull, &c. as we wiſhed to have had the opportunity of doing. There ſeemed to us in this caſe, a great ſimilarity to the firſt in *Hildanus*; but notwithſtanding his great anthority and ſucceſs, we durſt not venture to remove the tumor, as it was evidently cancerous, in a man ſo advanced in years, worn out with pain, &c.

I WISH what I have written may give you any ſatisfaction; and am,

Dear Sir,

Your affectionate Brother,

and faithful Servant,

B. GOOCH.

Of an eye which had a cancerous aſpect, proceeding from a blow, happily extirpated.

IN *December* 1764, Mr. *Donne* of *Norwich*, who I have before mentioned, aſked my opinion concerning a perſon's eye, which had a cancerous appearance, proceeding from a blow, with a man's fiſt, about three years before; and his caſe growing daily worſe, without having found any relief, by the moſt proper treatment, it was now in conſultation thought adviſable, to extirpate the whole eye without delay; which operation was well performed, and ſucceeded happily. The effuſion of blood was profuſe, yet puff-ball with moderate preſſure reſtrained it; and the wound was healed without any ill accident ſupervening. Though a conſiderable portion of the upper and under eye-lid was taken away in the operation, yet from the great extenſibility of the ſkin and *cellular* membrane in this part, the *cicatrix* was not broader than a ſtraw; and the orbit was ſo well filled as to leave but a ſmall concavity. The patient remains perfectly free from complaint, and is able to do the buſineſs of a taylor very well with his other eye, which was in ſome meaſure affected before the operation; complaining alſo of acute pain in his head ſometimes.

Of *Wens*.

THE *Steatoma*, *Meliceris* and *Atheroma*, are the three kinds of incyſted tumors, which our Writers take notice of under the denomination of *Wens*; beſides which there is a fourth Species not diſtinctly remarked by them, appearing to be only an increaſe of the *Membrana adipoſa* itſelf, growing ſometimes to a prodigious magnitude.

MANY years ago I aſſiſted a Gentleman of great eminence in his profeſſion, in taking off a tumor of this ſort, which was ſituated upon a woman's loins, extending from one ſide to the other, and it hung down upon her hips, reſembling a cuſhion ſuch as porters reſt their burdens upon; it weighed about fourteen pounds, and when we carefully examined it, we found it to be entirely fat. I have ſince extirpated nine myſelf, but none of them weighed more than a pound; one of them, ſituated upon the *Trapezius* muſcle, had a true glandular ſcirrhous knot, the ſize of a nutmeg, in the very centre of it. No ill accident happened in the cure of any of them, nor in ſome others, where I have been concerned with other Surgeons.

THIS kind of tumor admits of extirpation better than thoſe before mentioned, which ſometimes are ſo deeply rooted between the muſcles, and ſituated ſo near large blood-veſſels, as to make the operation tedious and dangerous; but this may be diſſected from the common membrane of the ſubjacent muſcles with great eaſe and ſafety.

THE ſoftneſs of this ſort of tumor, feeling like fat, with the breadth of its baſe, diſtinguiſh it from the other, but I have ſeen one in which the ſubſtance was harder, and deceived our judgment before the extirpation; though upon examination after, it was found to be only a lump of perfect fat.

AFTER having obſerved this kind of tumor ſeveral times, I accidentally met with it particularly and accurately deſcribed, in the *Mem. de l'Acad. Roy. des Sciences*, for the year 1709, by *Monſ. Littre,* a very eminent French Writer, who calls it *Lipome,* according to the following tranſcript, which I thought wou'd not be unſeaſonably introduced here from the original.

‘ *Les Medecins tiennent qu'une Loupe peut etre de trois eſpeces, ſelon la matiere dont elle ſera formée: Si cette matiere reſſemble à de la bouillie, la Loupe s'appelle Atheroma: Si elle reſſemble à du miel, Meliceri: Si elle reſſemble à du ſuif, Steatome. Monſ. Littre, veut etabler un quatrieme eſpece, qui ſ'appellera, Lipome, à cauſe de la graiſſe qui forme la Loupe. Il en a vû une en effect placée ſur l'epaule d'un homme depuis 4 à 5 ans, groſſe comme un pain d'un ſou, qui n'etoit qu' un Kiſte ou Sac membraneux mince, & d'un tiſſu fort lâche remple d'une graiſſe molle, et qui avoit toutes les qualitez des graiſſes ordinaires. Quoique la graiſſe & le ſuif ſe reſſemblent, cette nouvelle eſpece de Loupe, ou ce Lipome, ne peut pas être rapporté au Steatome, parce que la matiere du Steatome, n'eſt point inflammable, & ne ſe fond point, ou du moins tres difficilement, & imparfaitement, & c'eſt tout le contraire de celle de Loupe. Quand l' homme qui avoit cette Loupe fatiguoit beaucoup, ou faiſoit quelque exces en vin ou en liqueurs ardentes, ſa Loupe ſ'enfloit pour quelques jours, apparemment, ou parce que ſon ſang ſe fermentoit davantage, et que la graiſſe du Lipome ſe fondoit en partie & acquiroit un plus grand volume dans un kiſte, qui lui cedoit facilement, ou parce que les vaiſſeaux de la Loupe ſe dilatoient par le nouveau bouillonnement du ſang? (a)*

(*a*) From ſome remarks and experiments I have made, I am induced to believe, that the ſubſtance which is taken for ſuet in the *ſteatomatous,* and alſo that which is called curds in the *atheromatous* tumor, are only inſpiſſated *Lymph*; but I do intend to make ſome farther trials, as opportunities offer, to aſcertain theſe doubtful points, though indeed even now I am not in doubt myſelf.

When I was in *London* in the year 1758, Mr. *Tomkyns*, an ingenious Surgeon in *Norfolk-Street*, aſked me to ſee a patient, who had a large tumor upon the inſide of his thigh. Upon opening it he took out about a pint of inſpiſſated lymph reſembling brains, ſome of which we put upon the fire, and it ſoon became hard as horn. How this caſe ended I know not certainly, but it had a very threatening aſpect, and I think it turned cancerous.

A compound fracture, in which the power of Nature was manifeſted in a very ſingular manner.

July the 11th, 1739.

J. W. of B. about twelve years of age had both the *Tibia* and *Fibula* fractured by the wheel of a waggon heavily laden, paſſing obliquely over the limb in a deep rut, from juſt beneath the knee externally, quite to the extremity of the heel, making the moſt horrid, large lacerated wound we ever ſaw, with about nine inches of the *Tibia* projecting.

My very good friend Mr. *Amyas* late of *Norwich*, one of the beſt Surgeons I ever knew, with whom I had formerly lived, fortunately happened to be at my houſe at this juncture, to give me his advice and aſſiſtance. At firſt ſight we knew not how to act for the beſt, in a caſe ſo diſmally circumſtanced; we deliberated upon it, and at length reſolved to ſaw off a conſiderable portion of the bone, according to Fig. I. Pl. 16. rather than inſtantly amputate the limb, conſidering the drunken condition the boy was in: we then ſnipped off the looſe and tattered teguments, removed ſome ſharp-pointed fragments of the bones, brought the parts into as good a ſtate as we cou'd, dreſſed in the common manner as lacerated wounds require, and placed the limb in a caſe of ſtiff paper well lined with wool, tow, &c. and ſo contrived as to give as little diſturbance to it as poſſible upon dreſſing; uſing the tailed-bandage.

The wound ſoon digeſted kindly, and the cure was effected by the uſual treatment, without any ill accident of conſequence ſupervening; which favourable circumſtances we aſcribed to our precaution in removing the fragments and ſplinters of the bones, &c. at the firſt dreſſing.

In about three weeks I was ſenſible, as were alſo ſeveral Surgeons, whom curioſity led to ſee ſo uncommon a caſe, that the ſubſtance which grew in the ſpace of five inches, entirely void of bone, had acquired in the middle only, a greater degree of ſolidity than fleſh; which circumſtance, not agreeing with the general received notion of the generation of *Callus*, we proved beyond diſpute, with a ſharp-pointed inſtrument; and we obſerved that the oſſification was gradually formed from that central point, which was conſiderably advanced before any exfoliation was caſt off the ends of the divided bone. In leſs than four months the whole ſpace was ſo well ſupplied with the *Callus*, or rather new bone, that he was able to raiſe his leg when the bandage was off, without its bending. About a month after he ventured, without my knowledge, to ſtand upon it, when he thought it had ſtability enough to bear an equal proportion of the weight of his body: and in little more than half a year after the accident, he walked pretty well, even without the aſſiſtance of a ſtick. The leg is well ſhaped, not half an inch ſhorter than the other; and ſome years after the cure he told me he cou'd walk forty miles in a day without pain.

In thirteen compound fractures, I have ſawn off a conſiderable portion of the *Tibia*, and ſucceeded in both old and young ſubjects. This experience has given me fair opportunities of obſerving every days progreſs in the generation of *Callus*; and I always found it had the appearance externally of granulations of fleſh, changing gradually into bone: concerning which wonderful operation of Nature I ſhall not attempt an explication, but this, the preceding and following paragraphs are the more worthy of notice, as the preſervation of limbs may prove the conſequence of their being well conſidered. (*a*)

When

(*a*) See *Boehmer de Callo Oſſium contra Du Hamelii Theoriani.*—And *Kerckringius*, *Vater & Neſbit de Oſteogenia.*—Doctor *Hunter*, in his lectures, ſupports Dr. *Neſbit's* opinion, by curious anatomical preparations, which oppoſe that of *Kerckringius* and others, who ſay that bones are cartilages in their original ſtate.

When the external wound happens to be ſmall in a compound fracture, an ample dilatation of it at the very firſt dreſſing, is a point which demands particular attention, that any membranous ſtrictures, diſcoverable by gently introducing the finger, may be ſet at liberty by knife or ſciſſars, and that coagula of blood, extraneous bodies, looſe fragments and ſplinters of the bone may be extracted before the parts grow tenſe, inflamed and tender, in order to prevent the train of direful ſymptoms ariſing from irritation of the ſenſible parts; and ſhou'd much of the whole ſubſtance of the bone protrude, ſawing off a portion of it may haſten the cure, as well as give an opportunity of keeping the limb in a true direction, in the caſe deſcribed in Pl. 11. either with or without the machine repreſented in Pl. 12. Fig. 1. by itſelf, and upon the limb Fig. 2. to keep it ſteady and gently extended.

By this kind of treatment, and ſuch applications as are generally uſed in large lacerated wounds, in conjunction with a timely obſervance of a proper regimen, &c. the formidable accidents, as violent pain, fever, inflammation, &c. may in a great meaſure be prevented, as I have good reaſon to believe, founded upon experience, with ſuch ſucceſs, as makes me think this method, which I have long purſued, cannot be too much inculcated.

An accident of this nature is indeed very liable to be attended with a mortification: but this circumſtance ſhou'd not alarm the Surgeon to an haſty determination of the loſs of the limb. As ſoon as there appears any tendency to it, after the uſe of an antiſeptic fomentation, with *Sal ammon. crud.* diſſolved in it, dreſſing the wound with warm digeſtive twice a day, the whole limb ſhou'd be wrapt up in a *cataplaſm* prepared with barley-meal, bread, *Spec. pro Cataplaſmate e Cymino* and the fomenting liquor, or ſuch like; and then applying bladders about a third part full of hot water to preſerve a due degree of heat from dreſſing to dreſſing, will be found very beneficial. In ſuch caſes alſo we ſhou'd by no means omit the *Bark*, when nothing forbids its uſe, joining *Rhubarb* with it, to prevent the inconvenience attending coſtiveneſs; but this efficacious remedy requires great judgment and circumſpection in the adminiſtration of it: much certainly may juſtly be expected from it in mortifications, where there is an evident laxity of the *fibres* or conſtitution. *Rad. Serpent. Campb.* and volatiles may be joined with it to great advantage in ſome caſes, and *Nitre* in others; but this is the Phyſician's province.

Of an extraordinary *Emphyſema* attending a mortification in conſequence of a compound fracture.

MANY years ago I was called to ſee a boy of eight years of age, who, five days before, had received a fracture upon his leg, with a ſmall wound made by one end of the *Tibia* paſſing through the ſkin, which ought to have been enlarged at firſt, and the end of the bone ſawn off. The whole leg and thigh was now become *emphyſematous* to a great degree; and this appearance extended even to the lower part of the *Abdomen* on the ſame ſide. Inciſions were forthwith made in different parts of both leg and thigh, whence air ruſhed out with an audible hiſſing noiſe; and the *cellular* membrane, which contained this rarefied air, was mortified all the way, even where the ſkin was not ſo affected. Warm applications were made and other proper meaſures taken, but to no purpoſe. The patient died two days after, in which time the *Emphyſema* approached almoſt to the navel. (*a*)

As the renewal of the bandage, in a compound fracture, is painful to the patient as well as troubleſome to the Surgeon, in order to defend it from the matter, that we may not be under the neceſſity of changing it very frequently, the green waxed cloth commonly called oiled-caſe, may be placed on the outſide of the compreſſes, which will effectually prevent that inconvenience: and the compreſſes and tails of the bandage ſhou'd be moiſtened at the time of dreſſing with *S. V. Vin. rub. & Acet.* mixed together, to correct the putrid, offenſive ſmell of the matter, &c. and *Lavender-Water*, or ſome ſuch fragrant thing, may be ſprinkled upon the outſide of the bandage, upon the ſame occaſion, as the ſcent is ſometimes not only diſagreeable but very pernicious,

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(*a*) The following is a neat and efficacious diſcutient *Fotus.*

R. Aq. puræ ℔*iij*
Liniment. ſapon. ℥*iij*
Spirit. Mindereri ℔*j m.*

An extemporeous *Fotus*

both to the patient himſelf and thoſe who attend him. And, as the nature of the caſe requires the patient's confinement to his bed in one poſture, too much care cannot be taken to make it eaſy under him; and to effect this deſirable purpoſe, when the limb is ſecured in the manner that has been deſcribed, he may be ſafely lifted up with the ſheet, at any time during his decumbiture, by two ſtrong perſons on each ſide, aſſiſting himſelf at the ſame time with the rope uſually fixed over him, whilſt the nurſe makes up the bed, laying every thing ſmooth and even; but all theſe ſteps, neceſſary to the patient's eaſe and comfort, ſhou'd be conducted by the care and diſcretion of the Surgeon.

A very remarkable caſe in conſequence of a ſimple fracture of the leg, in which ſtrait bandage and other miſmanagement cauſed a mortification, and interrupted nature in the union of the bone.

J. G. of H. aged twenty-five years, of a robuſt conſtitution, broke his leg in the depth of winter. Immediately after the accident he ſent for a Surgeon, who was much addicted to drinking, and not being at this time in a condition to do his duty, left the limb in a bad poſition, with a ſtrait bandage upon it, which occaſioned a mortification. Another Surgeon was then called in, and the firſt diſcarded, under whoſe care it remained above ſix months, and probably by his too frequently diſturbing the limb, according to the patient's own account, and thoſe who attended him, nature was diſappointed in her work.

This Surgeon not being able to continue his attendance, on account of a miſfortune happening to himſelf, the caſe fell under my care, *June* the 3d, 1740. I found the limb very crooked and œdematous, with a ſinuous ulcer and carious bone from the middle of it quite to the ancle, and having opened the *ſinus* ſufficiently, I diſcovered the whole ſubſtance of the bone about three inches in length, moveable under an arch of *Callus*, as deſcribed in Pl. 16. Fig. 3. a. a. a. grown as hard as bone: and I ſaw no poſſibility of extracting this piece of dead bone, without cutting away the arch of *Callus*, which was effected, after laying it bare, with a ſmall carving gouge, and an oblique edged turner's chizzel and mallet. After having extracted this piece of bone, nature filled up the ſpace with a boney ſubſtance, and in about ſix months the limb became ſo uſeful, that the patient walked upon it; which afterwards was ſo ſtrong that he cou'd carry heavy burdens as he uſed to do, without any inconvenience.

A Surgeon of my acquaintance, of unqueſtionable abilities and of an ingenuous mind, told me he had aſſiſted in an amputation in a ſimilar caſe to this, and frankly confeſſed, that upon examining the limb after it was taken off, it appeared to him it might have been ſaved by this method.

Some rules neceſſary to be obſerved in the treatment of ſimple fractures.

AFTER reduction in the gentleſt manner, and placing the limb in the eaſieſt poſition, repeated bleeding, as the patient's ſtrength and conſtitution will allow, keeping him to a cooling, diluting regimen, and his body open by the mildeſt purgatives, are things of the utmoſt conſequence to be attended to, in order to prevent pain, tenſion, inflammation, &c. more eſpecially if he be of a ſanguine or plethoric habit, accuſtomed to live freely. By theſe means the parts will ſooner be brought into a condition to bear moderate preſſure in order to limit the growth of the *Callus*, upon which greatly depends making a ſightly limb; for when the *Callus* is ſuffered to become luxuriant, it will prove difficult, and perhaps be out of the Surgeon's power to ſubdue it, to the patient's and his own ſatisfaction.

Principiis obſta is an excellent precept in Surgery.

A *cataplaſm* prepared with oat-meal, oil and vinegar is one of the beſt applications at firſt; but in the country the patient frequently lives at ſuch a diſtance from the Surgeon, that he cannot attend to apply and renew it ſo often as is requiſite. *Unguent. tripharm.* or *Cerat. alb.* alone or mixed together, will be found a good ſubſtitute, ſpread upon a piece of the tailed bandage, by which means, and embrocating the limb once a day with warm oil and vinegar, the intention of the *cataplaſm* will generally be well anſwered, and without giving any diſturbance to the limb.——Applications, bandages, &c. muſt be varied according to the age and conſtitution of the patient, ſeaſon of the year and other circumſtances, all which will be duly conſidered by the judicious and attentive Surgeon.

THE bandage with eighteen tails, tho' that preciſe number is not to be invariably kept to, I think, is unexceptionable in ſimple as well as in compound fractures; it is much more commodious than the roller, as it admits of viewing the limb and making the neceſſary applications without diſturbing it, which is a matter of no ſmall conſideration. The tails of this bandage, if of a proper length, may be drawn tight enough over the compreſſes, to anſwer any purpoſe in the cure, as I have found by long and much experience: but in the concluſion, when the leg frequently proves *œdematous*, the laced-ſtocking is the moſt eligible bandage, as it makes a more equal preſſure than can poſſibly be done by any other, to aſſiſt nature in recovering the tone or elaſticity of the animal *fibres*. In ſuch a ſtate of the limb good friction with a fleſh-bruſh and a warm embrocation are adviſable; the ſame means will alſo be found beneficial, in reſtoring the plumpneſs of the calf which is apt to ſhrink and grow flabby during the cure of the fracture.

Many years ago I contrived the fracture-caſe for the leg, as ſhewn in Pl. 11. both ſeparately and upon the limb, which I have found very uſeful in compound as well as in ſimple fractures, and the ſame kind of caſe is alſo applicable to either thigh or arm. It has longitudinally all the ſtiffneſs of a deal board of the ſame thickneſs, and tranſverſely all the flexibility of paper uſed upon ſuch occaſions, which by uſe, and the moiſture that it will contract, ſoon loſes its proper degree of ſtiffneſs requiring a renewal. It is made of clean deal $\frac{1}{8}$ of an inch thick, with leather glued to it, and cut through to the leather, leaving the ſpace of $\frac{1}{6}$ of an inch, with a very fine ſaw ſuch as the joiners uſe, or a knife ſet to a certain gage, according to the thickneſs of the wood; I ſcarce know which manner of cutting to give the preference to, having made them both ways myſelf; but the ſaw-kerf allows of moſt flexibility.

Several ſkilful and experienced Surgeons have tried this caſe upon my recommendation, and have aſſured me, that they find it anſwers the purpoſe better than any contrivance they have uſed or ſeen. It is portable in the pocket, and may be uſed very well by only reſting the limb in it upon a pillow, but, I think, to more advantage and ſecurity between junks, eſpecially for the thigh; and a box will be found more commodious for the leg. It muſt be covered with wool, tow or ſoft cloths, or, what is far preferable, cotton-wool uſed in quilting; and the limb muſt be equaliſed with ſuch materials, to make the bearing regular and eaſy; uſing pieces of ſtiff paper occaſionally, where compreſſion is wanted to keep the bones together, giving as little pain as poſſible. The vacuity or ſpace between the calf and the heel requires to be particularly attended to, and uniformly filled up, to prevent a deformity of the limb by the ſinking of the bone, and pain of the heel by the weight reſting too much upon that point.

This caſe perhaps wou'd be of conſiderable uſe in the Camp, to tranſport patients with fractures from one place to another, with the greater eaſe and ſafety; or in the Navy to prevent their being ſo much affected with any extraordinary motion of the ſhip. It has been made uſe of by ſome of my brethren in great buſineſs, as well as myſelf, in removing patients many miles in compound and other fractures; and they have informed me of the ſame advantages that I have obſerved, the patient's complaining very little of pain upon the motion of the carriage, when carefully conducted: and ſeveral Surgeons of my acquaintance have provided themſelves with various ſizes for leg, thigh and arm. When the wound attending a fracture happens to be underneath the limb, part of the caſe may be cut away, in order to come at and dreſs it with eaſe to the patient, as the Surgeon will very readily apprehend.

Sometimes great inconveniences ariſe from the obliquity of ſimple fractures upon the leg, as well as upon the thigh, which the machine already mentioned for the compound fracture may obviate. Whenever it may be thought proper to uſe that and this caſe together, which is intended when applied alone to paſs above and below the knee and ancle-joints, it muſt be ſhortened ſo as to leave room below the knee and above the ancle, to affix the machine to the limb, as is deſcribed in Pl. 12. Fig. 2.

The gentle extenſion and ſteadineſs the limb will be kept in by theſe means, will greatly contribute to the prevention of pain upon any unavoidable motions, or ſtartings in ſleep which frequently happen; as well as preſerve the natural length and figure of it; and, by the aſſiſtance and ſupport of it, the patient may, with eaſe and ſafety, be removed from one part of the bed to another as often as occaſion requires.

When there is a good coaptation made of the fractured bone, and maintained by gentle extenſion, the lateral preſſure of the caſe will have a proper effect, without which, in this kind of fracture, the ends of the bone muſt inevitably overſhoot each other; and under ſuch circumſtance the caſe alone cannot fully anſwer the deſign.

It is ſcarce poſſible, that a fractured limb ſhou'd be kept ſufficiently ſteady, unleſs whatever is made uſe of for that purpoſe, paſſes over the joint above and below the fracture, which this machine does, as well as the caſe when uſed alone, and gives at the ſame time an opportunity of removing them to prevent their growing ſtiff, without diſturbing the fractured bone; which are circumſtances that ſhou'd by no means be over-looked in the management of fractures.

After the caſe is well lined, with ſuch materials as have been mentioned, according to the directions already given, the tailed bandage ſhou'd be laid over that lining, having the upper piece ſpread with *Unguent. tripharm.* or *Cerat. alb.* to receive the fractured limb, before reduction, that it may not be liable to diſturbance immediately after: upon which it ſhou'd be gently extended in a true direction, that as little pain as poſſible may be excited; increaſing the extenſion gradually to the neceſſary degree. Thus the bone will often be reduced without much uneaſineſs to the patient; but when the extenſion is haſtily made with great force, the violence of the pain ſometimes throw the muſcles into ſuch ſpaſmodic contractions, as more than counteract any extending power the hand can exert, to bring the bone into a reducible ſtate. When it is found neceſſary to uſe the machine with the caſe, that ſhou'd alſo be placed under the limb at firſt, for the ſame reaſon.

PLASTER-COMPRESSES, with pieces of very thin ſheet-lead, ſuch as tea is brought home in, placed in the middle, appear to me preferable to any other, in order to prevent an exuberance of *Callus:* and when a limb happens to be diſtorted, if the *Callus* will yield, by applying one of theſe compreſſes of a conſiderable thickneſs to the protuberant part, and two to the other ſide of the limb, leaving a due ſpace directly oppoſite to the protuberance, it may, by the uſe of the machine to extend it, and by the force of the turnikit-ligatures upon the fracture-caſe, be gradually reduced to a good figure, without cauſing an immoderate degree of pain, as I have experienced in ſome inſtances; and in others I have ſucceeded without the uſe of the extending machine, firſt making extenſion by hand, and then rectifying the deformity as much as I poſſibly cou'd, before putting on the caſe, to be acted upon by the ligatures, with the compreſſes placed as have been directed.

The ſame kind of compreſſes will alſo be found of ſignal ſervice in a fracture of a rib or *clavicle*, the latter of which require nice management to prevent deformity; the cavities above and below the *clavicle* as far as the *Acromion Scapulæ*, ſhou'd be gradually filled up with them, and other compreſſes conſiderably above the level, with pieces of ſtiff paper over them, that ſufficient preſſure may be made upon the fractured part, by the roller artfully turned, ſo as to keep the fractured bone gently extended. Without theſe precautions the *Callus* will frequently prove luxuriant to an unſeemly degree, giving great offence, particularly to Ladies.

How to keep a fractured thigh duly extended, particularly in adults, has exerciſed the thoughts of ſome of the ableſt Surgeons; and it is indeed a point of great importance to be well effected.

Several years ago I had a machine made for this purpoſe, according to a ſketch

I drew of it ſome time before, and ſoon met with a fair opportunity of trying its uſefulneſs. It anſwered my deſign the firſt time I uſed it, beyond my expectation, in a very bad oblique fracture, attended with a vexatious cough, which occaſioned extreme pain by ſhaking the limb, and deprived the patient of reſt; it kept the part, ſenſibly to himſelf, in a gentle extenſion, and the limb in a ſteady poſture, ſo that it was not the leaſt affected by the cough afterwards, which before, according to his own expreſſion, gave him ſuch a ſenſation of pain, as if the ends of the broken bone had been thruſting into the fleſh. This machine being lined with ſoft oiled leather, and well ſtuffed with wool, ſat very eaſy upon the part, without cauſing excoriation. Pieces of buff-leather will defend the limb againſt the machine, as well as the other lining and ſtuffing, as has been ſufficiently tried; but very particular care is required to guard the inſide of the thigh next the body.

This machine is very ſimple in its conſtruction, and intended to maintain its power upon the limb, in any poſition neceſſary to put that or the body in; and I hope the repeated trials of other Surgeons will farther confirm its utility, even in a fracture upon the neck of the bone. In Pl. 12. Fig. 3. it is ſhewn by itſelf, and in Fig. 4. upon the thigh with the fracture-caſe, both which leave good room to open and dreſs the limb, without removing any more than the upper part of the caſe confined with the ligatures, by virtue of the turnikits, which are of excellent uſe in ſtraitening or looſening the ligatures, without running any hazard of giving diſturbance to the limb.

Mr. *Pierce* of *Bath*, whoſe character out of his profeſſion is equal to his eminence in it, has laid me under the greateſt obligations. His tender care of me there, in a heavy affliction many years ago, and his continued friendſhip ever ſince, I can never forget. In conſequence of inſpecting a caſe in which I had been conſulted, this Gentleman communicated to me by letter two inſtances, where the neck of the *Os Femoris* was fractured, without the patient's falling to the ground, the head of the bone being twiſted off as he expreſſes it, by a jerk or ſudden action of the muſcles only.——One of them was the late Duke of *Portland*; upon his ſlipping his ſervant caught him before he came to the ground, and his Surgeon, from the manner by which the accident happened, pronounced it only a ſtrain; but nine months after, when he ſought relief at *Bath*, Mr. *Pierce* found the limb wanted four inches of its natural length, having a very exuberant *Callus* about the joint.——The other patient was a Merchant at *Briſtol* aged 75, in whoſe caſe two Surgeons diſſented from Mr. *Pierce*, being led into their miſtake by the circumſtance I have mentioned; but the patient dying ſoon after, the Surgeons behaved with candour, had the limb opened, wrote Mr. *Pierce* a letter confirming his opinion, and confeſſing their miſtake, in a very ingenuous and laudable manner.

Every perſon who exerciſes his ingenuity and judgment for the benefit of mankind deſerves commendation; and it affords me pleaſure to obſerve the regard that is paid to the treatment of fractures, it being one of the moſt important branches in Surgery, and it is the more neceſſary to be well conſidered and underſtood, as ſuch accidents very frequently happen, requiring the niceſt and moſt attentive management to make well ſhaped and uſeful limbs.——I wiſh Mr. *Wathen's* invention,

vention, publiſhed ſince theſe ſheets were ſent to the preſs, may be found, upon due trial, to anſwer the intentions better than mine, which I have uſed more than twenty years, much to my ſatisfaction ; and which alſo has been uſed and approved by many of my ingenious Brethren ; making alterations and improvements as they ſaw occaſion.—I cannot find that Monſ. *Petit* ever invented any machine for theſe very purpoſes ; but upon this ſubject may be read Monſ. *La Faye's Mem.* in vol. 2. and Monſ. *Belloy's* in vol. 3. of the *Mem. de l' Acad. Roy. de Chirurgie.*——Their machines are indeed very complex, though ſimplicity of conſtruction is a great excellence, and ſhou'd be ſtudied as much as poſſible.

PLATE II.

Fig. 1. The inferior piece, for a limb of common ſize, requires to be 22 inches long; from the hollow of the ham to that at the heel 13 inches, and about nine broad at the calf.

2. The ſuperior piece ſhou'd be about a foot long, and half as broad at the top.

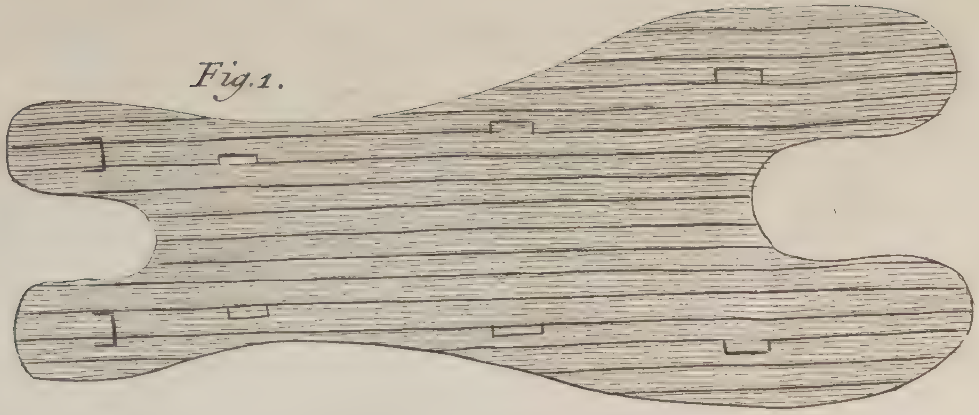
3. The ſole piece may be 10 or 12 inches long, broad at the top 4 $\frac{1}{4}$, at the bottom 3 $\frac{1}{2}$.

4. The turnikits and wire paſſing thro' them, uſed in ſtraitening the circular ligatures. The turnikits ſhou'd be about two inches and a half long, reſembling a peruke-maker's pipes.

5. The ſeveral pieces which compoſe the caſe ſhewn upon the limb.

Leather ſtraps and buckles may be uſed to ſupport the ſole-piece inſtead of fillets. The loops for the fillets to paſs through are beſt made with large braſs wire.

Fig. 1.



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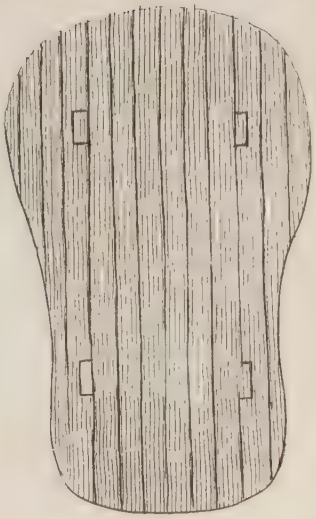

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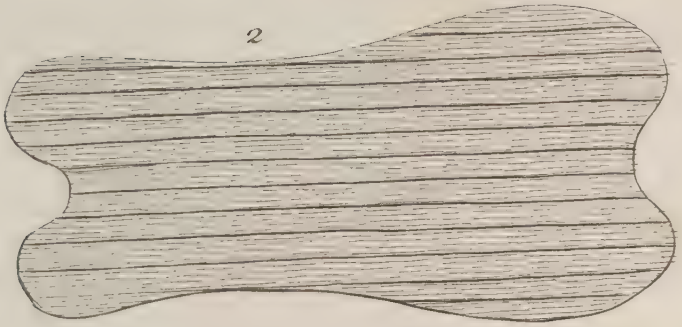

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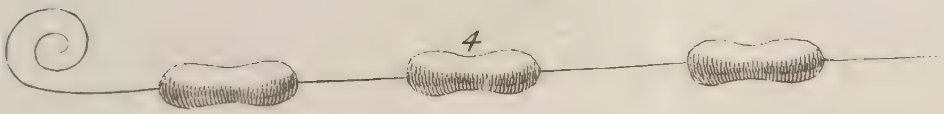

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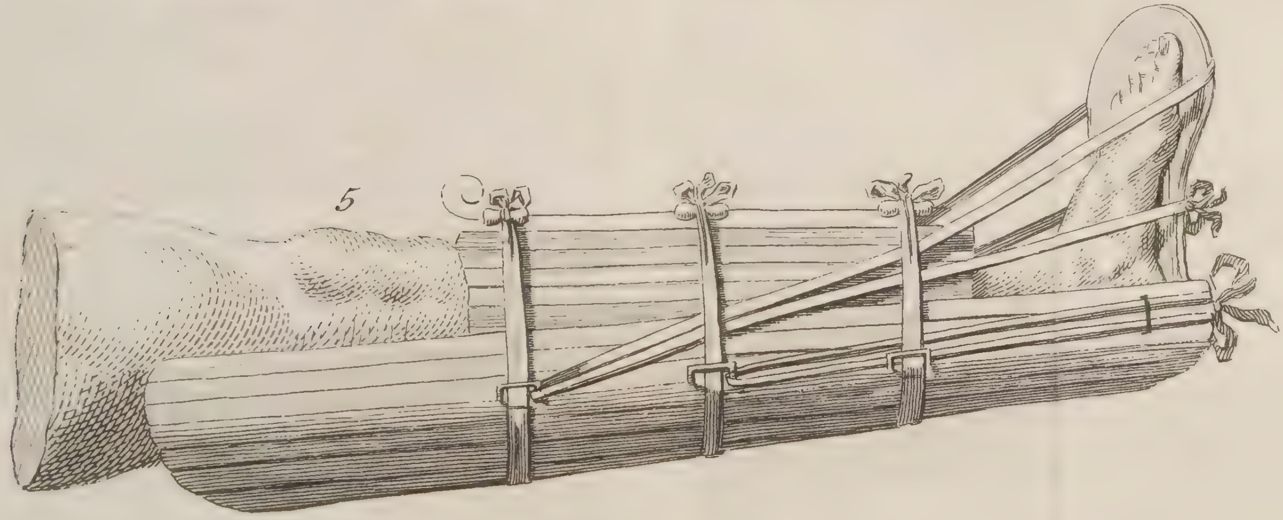

PLATE 12.

Fig. 1. The tranſom, to which the ſole is ſecured, is made to be opened and fixed by a pin; and the machine may occaſionally be made wider, as appears by other holes in the tranſom, about which, on each ſide of the ſole, fillets are to be tied, coming from a dimitty piece quilted for eaſe laced round the heel and inſtep, to make the extenſion upon the working of the ſcrews; but I believe buff-leather may prove eaſier to the part than the dimitty quilted.

2. Shews the machine and caſe together upon the limb.

3. The longitudinal parts of the machine for the thigh are deſigned to move upon the circular plates, by which means it may be accommodated to limbs of a different ſize; and as there is a pin at each end of the circular plates, if the limb happens to be larger than ordinary, ſtraps of leather may be added.

4. Shews the machine with the caſe upon the thigh.

5. The key to work the ſcrews. There ſhou'd be two ſuch keys, that the machine may occaſionally be wrought on both ſides at the ſame time.

MR.

Pl.12.

Fig. 3.

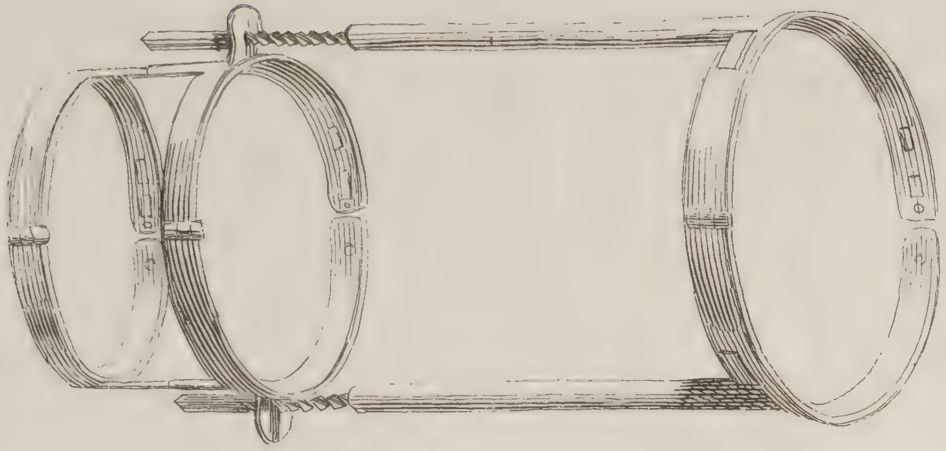

Fig. 1.

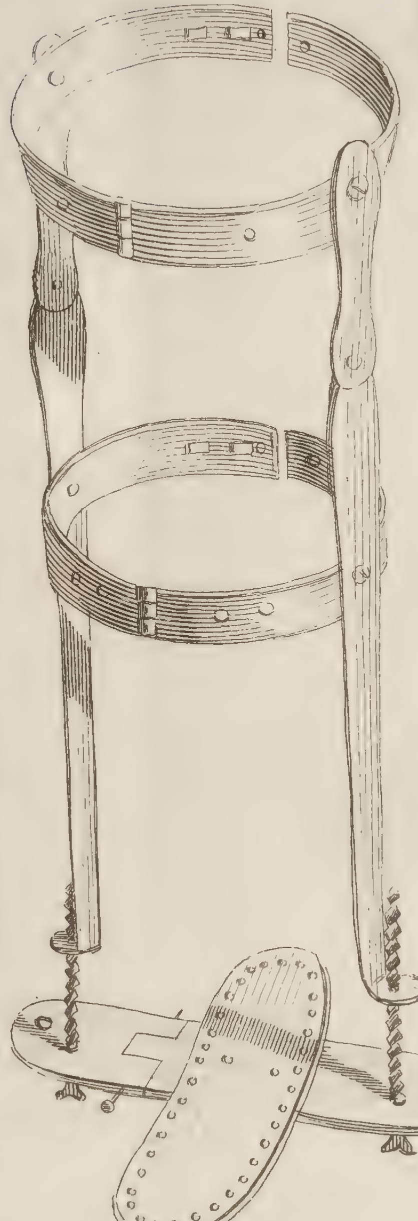

Fig. 2.

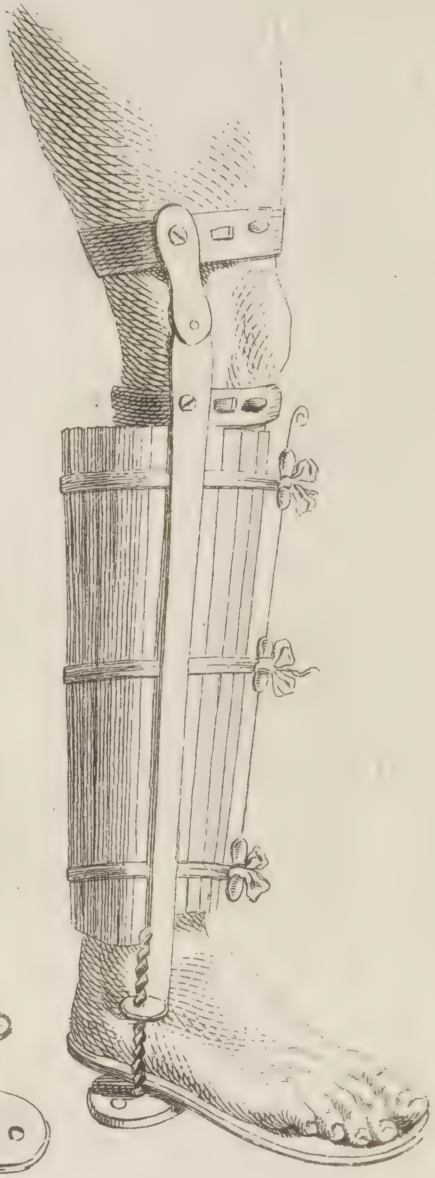

Fig. 4.

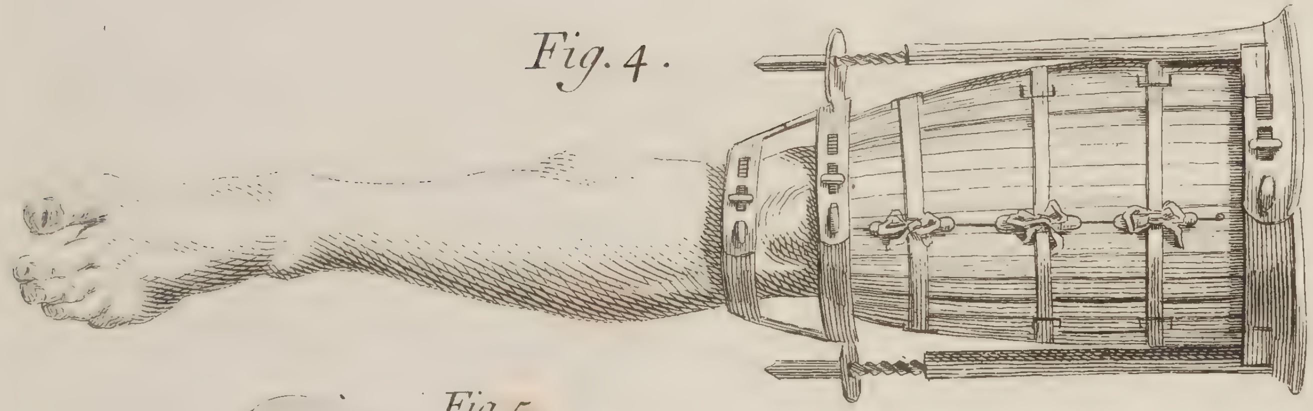

Fig. 5.

Mr. *Layman* of *North-Walſham* in *Norfolk,* an excellent Surgeon with whom I am well acquainted, has conſtructed a fracture-box to keep either leg or thigh in a due degree of extenſion, upon the beſt principles I have ſeen, to ſerve that important purpoſe. As my illneſs prevented an engraving of it being publiſhed here, as was deſigned with his approbation, I hope he will communicate it to the world, in a manner to have it more generally known. (*a*)

(*a*) The principles upon which this box is conſtructed are as ſimple as poſſible. It has a moveable bottom running in a groove by virtue of a ſcrew at the foot to make the extenſion, when the foot is fixed to the foot-board, with a bandage as deſcribed in the explanation of Pl. 12. Fig. I. and the leg below the knee to ſtandards ——In order to extend the thigh, the power is continued by the ſame means, having a band fixed above the knee and to the foot-board; thus the extenſion will be made from both thigh and leg, and ſo combined the reſpective parts may be eaſed: by theſe bandages and a belt paſſing on the inſide of the thigh, well adapted and properly fixed, the limb may be effectually extended; but words alone cannot convey clear and comprehenſive ideas upon this occaſion.—— Mr. *Layman* has aſſured me he has found this box anſwer his expectation for both leg and thigh; taking particular care to make the belt ſit eaſy by defending the parts.

Of weak and diſtorted limbs.

THE general rules to be obſerved in the management of them are, ſupporting the weak parts, oppoſing the inclination of the bones and counter-acting the bending force, without creating pain or interrupting the circulation of the blood. Certainly it is not leſs neceſſary, that the parts of our fabric, connected in a wonderful manner, ſhou'd have a juſt and regular bearing one upon another for ſtrength and ſupport, than thoſe of any piece of architecture.

A MACHINE of the kind ſhewn in Pl. 13. Fig. 1. I have by experience found very uſeful, in curing and relieving various diſorders of the knee and ancle-joints, when other methods had not ſucceeded.

WHEN there is great weakneſs in theſe joints, and they are apt to incline inwards or outwards in children or adults, the common bandages cannot reſiſt the inclination of the bones; and if applied very ſtrait with a view of giving ſupport to the relaxed parts, they may ſo far interrupt the circulation of the blood as to cauſe an atrophy of the limb, which I have ſeen more than once from ſuch miſmanagement.

If a weakened limb be kept in its true direction, nature alone will frequently reſtore its proper tone or elaſticity; but if it falls into an ill poſition, till that be rectified, little relief can reaſonably be expected from the moſt efficacious applications.

A few years ago I was conſulted about a Gentleman's ſon, who had long been lame in his ancle-joint, and treated with the common applications and bandages, under which he grew daily worſe. I found the ligaments much relaxed, and the *Tibia* by degrees had loſt its perpendicular direction and bearing, projecting a great way over the *Aſtragalus*; by which means the limb became extremely weak, and the point of the *Tibia* bore hard againſt the external part of the ancle, cauſing almoſt intolerable pain every ſtep he made.

In this caſe I directed a moveable eaſy pad ſhou'd be added to the machine, to bear againſt the protuberant part of the bone, which, by virtue of a ſcrew, acted upon it gradually, juſt as it could be born and was found neceſſary: by turning the ſcrew a little every day, the limb was ſoon reduced to its natural poſition without exciting pain of any conſequence; and in a few months he walked very well, without the aſſiſtance of the machine or a ſtick.

Sometimes I have directed it to be made double, in order to paſs both on the inſide and outſide of the limb, for the greater ſupport and ſecurity.

In this manner I had it made for the relief of an exceſſive corpulent Gentleman, who had eight months before received an accident, which proved diſputable, by the Surgeons concerned, whether it was only a violent extenſion of the tendons, or a fracture of the *Fibula* joined with it: however the limb remained weak, the joint was much diſtorted, and, when he bore but little upon it, the external ancle almoſt touched the ground, depriving him of the power of walking, and giving him much pain. He was ſoon enabled to walk by the aſſiſtance of the machine, which he wore ſome months and then cou'd walk many miles without it, and without pain.

SOME years before, I ſo far relieved a Gentleman's wife, by this means, as to enable her to walk, though by external injuries, done to both knees, ſhe had been quite lame for a long while. In this caſe the plates that bore againſt her knees on each ſide, were broader than ordinary and concave, lined with leather and ſtuffed very ſoft with wool. She is now able to walk without any aſſiſtance. (*a*)

IN the year 1735 I had a machine of this ſort made for a Gentleman's daughter, to receive the hip, in order to take the weight as much as poſſible off the knee, which was become extremely weak, painful and uſeleſs, from an extenſion received many years before; and it was now deemed an incurable caſe. She ſoon found relief

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(*a*) In this caſe the machines were made as light as poſſible, having inſtead of whole plates to bear againſt the knees, only a rim of ſteel about an inch broad. And upon many occaſions I have ordered knee-pieces to be made in the ſame light manner, that have proved very beneficial in weak and looſe joints, wherein common knee-pieces were of little or no uſe.

lief by keeping the joint ſteady, and removing the burden from that weak and painful part, which gave nature an opportunity to recover the ſtrength of it; ſhe wore it about two years, and then laid it aſide for one leſs cumberſome, that did not go up to the hip; this ſhe alſo wore a few years, and has been able to walk very well without ever ſince.

AFTER fractures of the leg, the machine as ſhewn upon the limb may prove a great ſecurity, eſpecially when the patient will not be long enough confined; but expoſes himſelf to accidents, before the *Callus* is perfectly oſſified, by which means the good direction the Surgeon leaves the limb in, is ſometimes altered to his diſcredit.

THE good effects we have ſeen from thus ſupporting weak and diſtorted limbs, in a variety of inſtances, ſhew the uſefulneſs of mechanics in Surgery as well as in other ſciences.

Mr. *Page* the watch-maker at *Norwich*, has a good head and a good hand; I have very often employed him upon theſe occaſions much to my ſatisfaction.

Explanation of PLATE 13.

a. a. a. The ſteel bows, made thin and very elaſtic, muſt ſtand clear of the edges of the *Tibia*, paſs about half round the limb, and be fixed with ſtraps of leather hung unto pins.

b. b. b. The longitudinal plate, to be made of tough ſtuff, as the workmen term it, and as light as poſſible with ſufficient ſtrength.

c. The ſhank to paſs into the ſocket, in that part of the machine which is to be fixed into the heel of the ſhoe or laced-boot, and confined there by a ſcrew at the bottom.

d. The ſcrew to keep the ſhank in the ſocket.

FIG. 2.

Repreſents the machine uſed in the cure of the total diviſion of the tendon of my horſe's leg hereafter to be mentioned.

Miſcellaneous

Fig. 1.

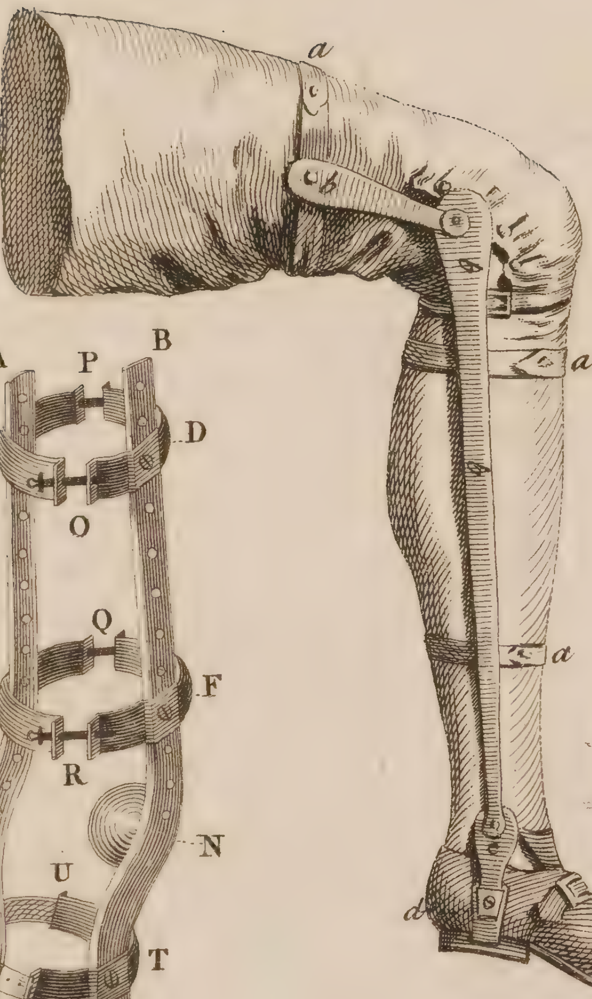


Fig. 2.

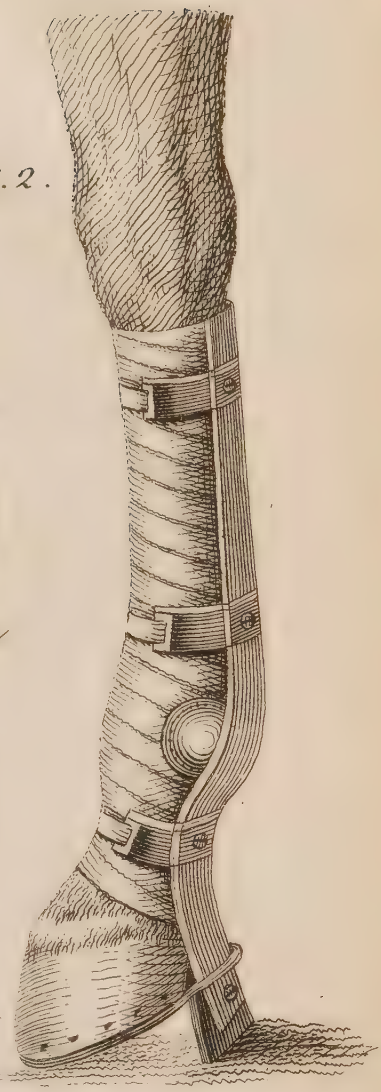
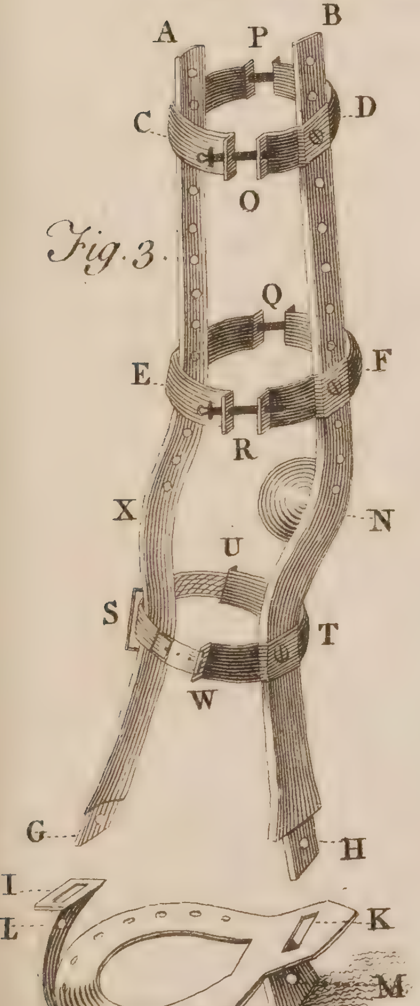


Fig. 3.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Miſcellaneous remarks upon luxations.

COMPOUND luxations are of a more dangerous nature than compound fractures, for very plain reaſons; but if a Surgeon ſhou'd judge it adviſable to attempt ſaving a limb under ſuch threatening circumſtances, I am inclined to think, from what I have obſerved, he will be more likely to ſucceed, by ſawing off the head of the bone, eſpecially if it has been long quite out and expoſed to the air.

MANY years ago my old acquaintance and ingenious friend Mr. *Cooper* late of *Bungay*, was called to aſſiſt in an amputation, on account of an extraordinary accident of this nature at the ancle joint, in a ſubject advanced in years; but inſtead of conſenting to the intended operation, he ſawed off both the head of the *Tibia* and *Fibula* as repreſented in Pl. 16. Fig. 2.

by which means he preſerved the limb, making it ſo uſeful, that the poor man walked and wrought for his bread many years after; of which ſucceſs I am a witneſs: But caſes of this kind may happen, calling upon the Surgeon to join the greateſt prudence to his ſkill in his profeſſion; for after his utmoſt endeavours in a tedious cure, the limb may not prove ſo uſeful as a wooden leg.

The able Surgeon I have juſt mentioned told me, he had ſucceeded to his wiſh in a young ſubject, by ſawing off the head of the *Radius*, which paſſed through, and made a diſmal laceration of the tendons at the wriſt; and that the patient found little or no defect in the ſtrength or motion of the joint.——We conſtantly correſponded, and reciprocally exchanged our notions without reſerve as long as he lived; and he told me it was in conſequence of our converſation upon this ſubject that he tried this practice.——I was ſince called to a young woman, who had the ſecond bone of the right thumb forced through, in ſuch a manner, that it cou'd not be kept in its place till I ſawed off the head; in conſequence of which ſtep, this dreadful lacerated wound healed ſpeedily and kindly, without the leaſt ill accident ſupervening; and nature, by little and little, formed a new joint, with ſuch a degree of motion as enabled her to uſe her needle again, and perform every kind of buſineſs with it as well as before, to my great aſtoniſhment, as well as ſome other Surgeons.

Mr. *Freke's* Commander, with a very little alteration, appears to me the beſt machine which I have ſeen, for the reduction of an old and obſtinate luxation of the *Humerus*, as the limb can be moved in all directions during the extenſion, and have the ſituation of the head of the bone examined at the ſame time. I have ſucceeded by it in caſes of many months ſtanding, that wou'd not yield to other methods; but great care is required in the uſe of it, particularly to keep it in a true perpendicular direction againſt the patient's ſide, which may be very eaſily done by fixing it ſteadfaſtly with ſcrews to the floor, the baſe of it being enlarged, and to the ſide with a girdle round the body.

In recent caſes I have always been ſo happy as to ſucceed by hand, which is better than any machine when powerful enough; and in general violent force is not required. The method I have uſually followed, is placing the patient in a ſitting poſture upon the floor, for ſteadineſs ſake, ſecuring his body in a good attitude, with a band properly padded againſt his ribs under the arm, hung unto a hook ſcrewed into a door poſt: and having by theſe means obtained one fixed point, we have leſs to attend to in the reduction. This circumſtance is of no ſmall conſideration; for when the extenſion and counter-extenſion are performed by the aſſiſtants placed in the common manner, it is ſcarce poſſible for the Surgeon to make them exert their force ſteadily and regularly enough to keep the arm at a right angle with the body; which is generally neceſſary, till he directs the depreſſion, or other direction of it.

That kind of luxation of the *Humerus*, where the head of the bone ſlips beyond the *coracoid* proceſs under the *pectoral* muſcle, and reſts upon a rib, may baffle the attempts of the ableſt Surgeons, as I have ſeen, both by hand and machines, from the oppoſition which that proceſs makes to the return of it. An examination of the Skeleton will elucidate this matter, and evidently ſhew the beſt poſition to put the arm into, in making the extenſion to facilitate the return of the head of the bone. It is alſo poſſible that when the *burſal* ligament is upon the full ſtretch, it may ſuffer a laceration by a violent force from the head of the bone, and then collapſe about its neck, in ſuch a manner as to render reduction impracticable; or the intervention of ſome lacerated muſcular ſubſtance may prove as great an obſtacle. (*a*)

(*a*) See what Mr. *Thompſon* and Mr. *White* have ſaid upon this ſubject, in the *London Medical Obſervations and Inquiries*; from whence I have received information, that proved very uſeful to me in three inſtances, ſince the firſt edition of my obſervations.

After reduction, and obſerving the general rules directed in fractures, to prevent or remove the common accidents attending them, it ſhou'd always be remembered to give the joint gentle motions occaſionally, as ſoon as it will bear moving without cauſing pain, in order to prevent ſtiffneſs from an accumulation and ſpiſſitude of the *Synovia*, and to recover the action and power of the muſcles, wherever the luxation happens to be; but more eſpecially at the elbow joint. The ſame precaution ſhou'd be obſerved when a fracture happens near a joint, that the ſpreading of the *Callus* may not occaſion an incurable immobility of it; but in this caſe more care is required in moving the joint, leſt the union of the bone ſhou'd be interrupted.

When a greater force than ordinary is required, in the reduction of an arm or thigh, the pullies in Doctor *Deſaguliers's* Experimental Philoſophy, Pl. 10. Fig. 7. are applicable ſo as to exert their full power upon the bone itſelf, by which one perſon will be equal to many, even ſuppoſing their force by hand cou'd be united commodiouſly for that purpoſe. There ſeems to be no objection againſt their uſe, as they can be affixed to the part without injury, and have their power eaſily regulated.——*Scultetus* in his *Armament. chirurg*, has ſomething like them, which he took from *Vitruvius.*——See Mr. *Travis's* account with remarks upon a luxation of the thigh bone, in the *London medical Obſervations and Inquiries.*

Remarks upon Amputation.

THOUGH the preſervation of limbs undoubtedly gives the higheſt pleaſure and reputation to Surgeons, and is the object they ought always to have in view; yet, when amputation is found abſolutely neceſſary to ſave life, there are ſome circumſtances worthy our greateſt attention, for the eaſe and benefit of the patient.

SURGEONS have long complained of the great inconveniences attending a want of fleſh, to cover the end of the bone in amputation above the knee, by which the cure is much retarded; and the ſtump being left in a conical form when cured, is more liable to external injuries ever after.

IN order to prevent theſe inconveniences many methods have been propoſed and tried, which have not fully anſwered the end. In Pl. 14. is the figure of a retractor made of firm, ſtrong leather, which I invented and firſt uſed in 1739, and am convinced by repeated trials, it will effectually anſwer the purpoſe. The length of it for a limb of a common ſize ſhou'd be 14 inches, the breadth in the middle about five, and the diameter of the central hole a little more than one; the lines direct the diviſion of it.

After making the double circular inciſion, with the utmoſt exactneſs, in the uſual manner, the operator may uſe either of the ſhort knives in the ſame plate, or a common inciſion knife, to divide the muſcles quite round, about two inches up cloſe to the *perioſteum*, and then put on the retractor, adapting the hole of it well round the bone upon the *perioſteum*, deſiring an aſſiſtant to draw up the muſcles equally and regularly with it, as far as ſhall be thought neceſſary: after which the bone is to be ſawn as near the retractor as poſſible, without paying any regard to the *perioſteum*, which will prove no impediment to the motion of the ſaw, and the more the bone is denudated of this membrane, the more liable it will be to exfoliate;

liate; but if the Surgeon chooſes to ſcrape the *perioſteum* off the bone before he ſaws it, he will have a fairer opportunity of doing ſo when the muſcles are thus retracted. The retractor has a farther uſe; for by incloſing the fleſh it defends it from the ſaw, and makes a more decent appearance in the eyes of the ſpectators; and this is a matter of ſome conſequence.

By theſe means as much fleſh may be ſaved as the Surgeon judges proper; I have found an inch and a half or two inches ſufficient, which I always made an allowance for, as far as I could in the circular inciſion; but in ſome caſes, where there is a great flaccidity of the muſcles, it may be requiſite to leave more. When the muſcles, &c. are brought down equally and cover the end of the bone, ſtrips of common plaſter applied at due diſtances, paſſing through ſlits at the end of the ſtump over the uſual dreſſing, and reflected four or five inches up the thigh, will prove powerful enough to keep them in that ſituation, and be eaſy to the patient. Thus a ſtronger preſſure may be made at the end of the ſtump, if required, than can be done by the roller; but when a ſtrong preſſure is not there required, the ſtrips of common plaſter only decuſſating at the end of the ſtump, forming the figure of an aſteriſk, without paſſing through ſlits, will be found ſufficient.

I have practiſed this method in the preſence of ſeveral of my ingenious brethren, and recommended it to others, which has met with their approbation; and, after trying it themſelves, they have aſſured me that it fully anſwers the intention. Since I followed this method, I have cured many ſtumps without any projection, viſible exfoliation of the bone, or the cicatrice being near ſo broad as uſual. In the laſt amputation I performed upon the thigh, there was a neceſſity of doing it much higher up than ordinary, yet, though it was a large limb, the cicatrice was but a few lines broader than the diameter of the end of the bone, left concealed in a ſhallow cavity, and the ſtump was ſpeedily healed without any exfoliation. (*a*)

The

(*a*) Many years ago my ſon Doctor *D'Urban* was at *Paris*, and had ſome converſation upon this ſubject with

The paſſing the needle very deep, and including a great circumference of fleſh, &c. within the ligatures, in taking up the arteries, creates unneceſſary pain, without ſo effectually anſwering the main end and purpoſe; for they will ſoon cut through the ſoft fleſh, and may not then ſufficiently compreſs the veſſels to prevent future bleeding: beſides, they often lay the foundation of *ſinuſes* troubleſome to cure, and cauſe other inconveniences; therefore all poſſible care ſhou'd be obſerved in paſſing the needle, which may be more certainly done without incloſing too much of any ſubſtance, when the mouth of the veſſel can be diſcovered without looſening the turniquet-ligature. Thoſe well acquainted with the courſe of the arteries, after the blood is

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with a Surgeon of great character there, whoſe pupil he was, and he approved the method At the famous Univerſity of *Edinburgh*, where he afterwards ſtudied phyſic, and took a Doctor's Degree much to his honour, he mentioned this method of amputation to a Surgeon of the Royal Infirmary, who practiſed it upon his authority, and aſſured him it anſwered the deſign entirely to his ſatisfaction.——I have obſerved that the more firm and muſcular the parts are where the operation is performed, the leſs liable they are to retract from the bone in the cure, conſequently under this circumſtance leſs of them is requiſite to be ſaved by the uſe of the retractor.

is well ſpunged up, will be able to diſcern and ſecure moſt of them neceſſary to be regarded, without being ſhewn them in that manner; but when it is required to looſen the tourniquet-ligature, it ſhou'd be done very ſlowly and cautiouſly, that the blood may not flow with impetuoſity to obſtruct the operator's view; the leaſt bubbling appearance of it at the mouth of the veſſel will be direction enough to an operator that is not precipitate. (*a*)

As pain is a dreadful ſymptom indeed, and productive of much miſchief even after an operation is perfectly well performed, the utmoſt attention is required to prevent or remove it; and for this conſideration ſtrait circular bandage ſhou'd be avoided, to which, from the interruption of the circulation of the blood, may juſtly be aſcribed not

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(*a*) In ſeveral operations wherein I have been concerned, in the laſt ſeven years, I have uſed and recommended a pair of ſmall diſſecting *forceps*, to take hold of the edge of the artery and draw it out a little way, to be then held by an aſſiſtant, in order to give a fair opportunity of paſſing the needle without taking in any more cellular membrane than to prevent the ligature from ſlipping off at the end of the veſſel. By this means any ſubſtance may be avoided, which being included might prove prejudicial.

not only pain, but many of the moſt threatening conſequential ſymptoms. A very little reflection will ſufficiently convince us of the abſurdity of this practice, and that inſtead of preventing, it tends directly to increaſe the *hæmorrhage*, as has been demonſtrated by Profeſſor *Monro*, one of the greateſt men of the age.

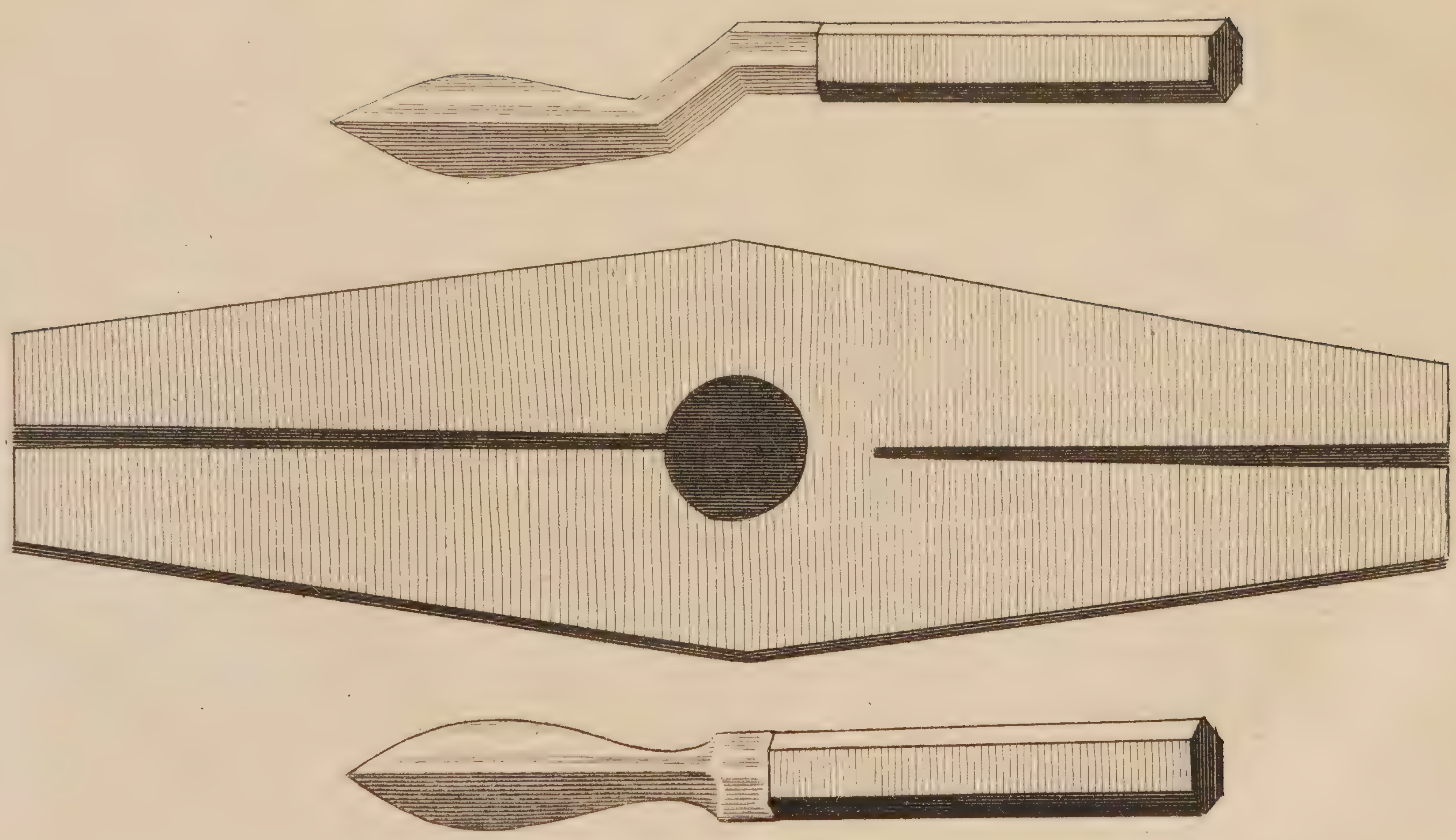
SOFT lint evenly applied, a plaſter or pledget ſpread with *Unguent. tripharm. Cerat alb.* or ſomething of this nature, confined with ſtrips of common plaſter as has been directed, and a knitted woollen cap, will be found dreſſing and bandage ſufficient, in whatever limb amputation is performed; which readily yielding to the diſtention of the veſſels, upon the increaſed power and velocity of the blood, will allow a more free and uninterrupted reflux; conſequently leſs pain, fever and inflammation will enſue, and a quicker digeſtion of the wound, without ſo much offenſive gleet, as I have obſerved. Hence we may reaſonably infer, that the patient's life will be leſs expoſed to danger, if ſtrait bandage be omitted in amputation: and as this method of dreſſing after the operation is the moſt ſimple and expeditious, as well as the eaſieſt and ſafeſt, it may more particularly merit the conſideration of Gentlemen of the Faculty employed in the Army and Navy.

Some uſeful Remarks.

In order to make the circular inciſion with the more exactneſs, the uſe of a leather inſtead of a common fillet is adviſable, to thoſe not converſant in amputation, and it ſhou'd be ſpread with common plaſter to make it fix the better upon the part; one or two thickneſſes of which riſe enough above the ſuperficies of the ſkin to be an unerring direction to the knife, even in a hand not quite ſteady; and there is another advantage in the uſe of it, as it keeps the muſcles more firmly together to reſiſt the knife, which are frequently very flabby, where this operation is requiſite. A ſecond fillet, applied about ¾ of an inch from the firſt, may ſometimes be found neceſſary to the ſame purpoſe; for, in the cure of the ſtump, much depends upon an exact and regular ſection of the ſkin, membrana adipoſa and the muſcles; and I am inclined to think that this part of the operation may be better performed with a ſtrait than a curved knife; indeed the inſtrument-makers now give it but very little curvature, as well as make it much ſmaller and lighter, and better accommodated to every purpoſe.

When we uſe the common tourniquet and ligature, I think it may not be amiſs, from an accident which happened in an operation wherein I was concerned, to affix two ligatures to the compreſs, one of which to be rolled up and pinned back upon it, to be in readineſs ſhou'd the other happen to break. I give this precaution, having been preſent when ſuch an alarming circumſtance happened in the operation, juſt when the *crural* artery was divided, which threw the operator into ſome confuſion, but I ſoon made my handkerchief ſerve the purpoſe of another ligature. This accident which made an impreſſion upon the minds of the ſpectators to our diſadvantage, was owing to the inadvertence of the perſon employed to manage the tourniquet, in twiſting the ligature too much; therefore, to obviate ſuch an inconvenience, particular care is required in tying the ligature, ſo that very little more than one turn of the ſtick may ſtraiten it ſufficiently. This incident made me more attentive than ordinary ever after.——Mr. *Freke's* machine, which I have uſed many years, is a very good one, and prevents the danger of breaking the ligature, as it rolls round a cylinder, and has many other advantages; but inſtead of the ſmall wooden compreſs as he directed, to be placed over the artery, I always uſed one rather ſoft than hard, and of greater dimenſions, for reaſons that appeared to me very obvious.——Since his, another has been invented, I believe, by Mr. *Crane*, one of the worthy Surgeons of St. *Bartholomew's* Hoſpital, which is evidently preferable, and now in more general uſe; it is formed upon Monſ. *Petit's* plan, improved by the ligature running upon four cylinders, by which conſtruction, it moves through four times the ſpace at one revolution of the ſcrew, and in that reſpect conſiſts its excellence.

Pl. 14.



Of a compound fracture and an amputation in conſequence of it, attended with very remarkable circumſtances.

December 12th, 1756.

MR. *Layman* of *Diſs*, a man of genius and great abilities in his profeſſion, deſired me to join in conſultation with him and ſome other Surgeons, in the caſe of a man aged about thirty-five, of an indifferent habit of body, who received the day before a compound fracture upon his leg, by a waggon going over it.

We found a piece of the whole ſubſtance of the *Tibia*, and another of the *Fibula* between four and five inches long, exactly correſponding with each other in length, looſe in the wound, and the muſcles, &c. contuſed and lacerated in a very uncommon manner.

AFTER ſtrictly examining the caſe, we were unanimouſly of opinion, that amputation without delay was moſt adviſable, and it was accordingly performed, in which ſome circumſtances occurred, that we were not aware of. We thought we had indiſputably determined for the beſt, in agreeing to take off the limb below the knee, from what we obſerved externally, and by the examination we made with our fingers in the wound; but in the operation, the fleſh between the bones was found ſo ſoft, that it would not reſiſt the knife, and the *Fibula* was ſo looſe at its junction with the *Tibia*, that it cou'd not be ſawn without great difficulty, though the perſons who held the limb, took particular care to keep it ſteady, both above and below: we alſo found it extremely difficult to take up the artery, incloſed in this ſoft fleſh, which would not well bear the ligature, and probably from that condition of the fleſh, the veſſel had liberty to retract farther than it cou'd otherwiſe have done; but in this caſe could the mouth of the veſſel have been diſcovered, the uſe of the diſſecting *forceps* as recommended in the laſt chapter, might have proved the means of preventing the future dangerous *hæmorrhage*.

BY the looſeneſs of the remainder of the *Fibula*, and the fleſhy ſubſtance between that and the *Tibia* having ſuffered ſo much, we were of opinion, that the bones were broken by the firſt wheel, and the ſecond coming upon that part of the *Fibula*, nipped the intermediate ſubſtance between it and the *Tibia*, as in a vice.

EVERY thing promiſed ſucceſs till the ſeventh day after the operation, when a violent effuſion of blood proceeded from the veſſel that was enveloped in the ſoft contuſed fleſh, whilſt Mr. *Layman* was dreſſing the ſtump. The uſe of the needle and ligature was now judged impracticable, from the loſs of ſubſtance between the bones, and retraction of the veſſel; nor could Mr. *Layman*, after having checked the *hæmorrhage* with the tourniquet, make the artery bleed again, though he let the ligature quite looſe and waited a conſiderable time for that purpoſe; he then applied a piece of *Agaric* of the *Oak* as nearly as he could gueſs over the mouth of the veſſel, with good compreſſion.

After having proceeded thus far, he diſpatched a meſſenger for me, that we might conſider together how to guard againſt this impending danger. Two days after, we were again alarmed with an *hæmorrhage* from the ſame veſſel, which proved ſo violent as to bring the patient's life into imminent danger, though a perſon was appointed to attend conſtantly and uſe the tourniquet occaſionally, but he was not vigilant in his poſt.

As the needle and ligature were now become entirely uſeleſs, and the *Agaric* had proved ineffectual, we had recourſe to a vitriol button, after having ſtopped the courſe of the blood with the tourniquet, keeping the ligature ſtrait till we thought the *eſchar* was formed; and in the dreſſing we applied lint and little pieces of ſtiff paper,

per, with ſmall compreſſes of cloth, ſo as to riſe ſufficiently above the ſurface of the ſtump, that the compreſſive force might be increaſed, as occaſion ſhould require, particularly and directly over the veſſel without affecting the ſtump in general. Having done thus, we gave him an opiate, and employed a perſon to make a conſtant preſſure with his hand at the end of the ſtump over a circular piece of ſtiff paper, but not to ſuch a degree as to cauſe much pain.——We recollected Monſ. *Petit's* expedient to compreſs the artery in the *inguen*, in the caſe of the Marquis of *Rothelin*, whoſe life was reduced to the utmoſt danger, by an effuſion of blood 21 days after having had his thigh amputated higher up than ordinary; and then ſpeedily contrived in our exigence, a machine as deſcribed in Pl. 15, to act more equably than the hand, making the fixt points upon the ſhoulders, by the bands paſſing over them.—From what I can remember of the hiſtory of the Marquis's caſe, not having the authority before me, he received a ſhot in his thigh in an engagement, and that the wound cou'd not be healed; but, a *caries* enſuing, after 20 years, amputation of the limb became neceſſary: after which, on examination of the thigh, the key of his bureau was found ruſty, lying contiguous to the bone. (*a*)

WE agreed upon dreſſing again three days after, and then to apply buff-leather, anſwerable to the extent of the *eſchar*, moiſtened with ardent ſpirits in order to prolong the fall of the *eſchar*. This we thought was the beſt ſubſtance to reſiſt the impetus of the blood at the mouth of the artery; and it was uſed after the ſeparation of the *eſchar*, till nature ſupplied a ſtrong, and a better covering of fleſh.

THE

(*a*) The relation of this extraordinary caſe is inſerted at large in the *Mem. de l'Acad. Roy. des Sciences* for the year 1731, and epitomiſed in the Elogy upon that celebrated Surgeon, in the ſecond vol. of the *Mem. de l'Acad. Roy. de Chirurgie.*——After this Monſ. *Petit* wrote a diſſertation concerning *coagula* of blood in the arteries as proving the means of ſtopping the *hæmorrhage* after amputation, and took great pains to propagate and eſtabliſh that notion, which his own patient's caſe, as well as this of ours, ſeems to overthrow.

The tourniquet was conſtantly uſed during the time of dreſſing, and continued till the machine was again well adjuſted, which the patient ſaid always made his ſtump eaſier by a moderate degree of preſſure at the end; and the reaſon of that effect is obvious enough. We uſed *Freke's* tourniquet, and that the frequent application of it might not effect the thigh, the place was often changed, and well defended againſt the ligature.

After this we had no farther trouble from the bleeding, the ſtump healed kindly, and the patient recovered as good health as before the accident. We do attribute the preſervation of his life, in a great meaſure, to the uſe of this machine. For a ſtump of a common ſize the external plate may be about five inches in diameter, the internal four; they may be made circular, or a little elliptical, or of ſuch a figure as the Surgeon thinks fit.

Among the reſt of our chirurgical converſation at this meeting, mention was made of an accident, in which one of the arteries between the *Tibia* and *Fibula*

bula was opened about the middle of the leg, and the bleeding ſtopped from time to time by various methods; but at laſt it was thought adviſable to amputate the limb.

Upon reflection it occurred to me, that in this caſe the removal of two or three inches of the *Fibula* was practicable; and that probably it might have given a fair opportunity of coming at the bleeding veſſel, and proved the means of preſerving the limb.

Explanation of PLATE 14.

Fig. 1. Shewn upon the part in Fig. 2.

a. a. Circular ligatures to pin the bands to, intended to paſs over the ſhoulders, in order to keep them parallel; and they ſhould alſo be pinned to a waiſt-band for the ſame purpoſe.

b. The tourniquet and ligature.

c. c. The fillets, paſſing through the upper and lower ſlits, to keep the machine ſteady and in a true direction when pinned to the bandage.

If the machine be uſed above the knee, it may be better to have the bands paſs on the anterior and poſterior parts of the thigh than on the ſides, to prevent obliquity in their direction. How far this little inconvenience might be prevented, by paſſing in that manner, when the machine is wanted below the knee, I have not yet experienced.

Fig. 2.

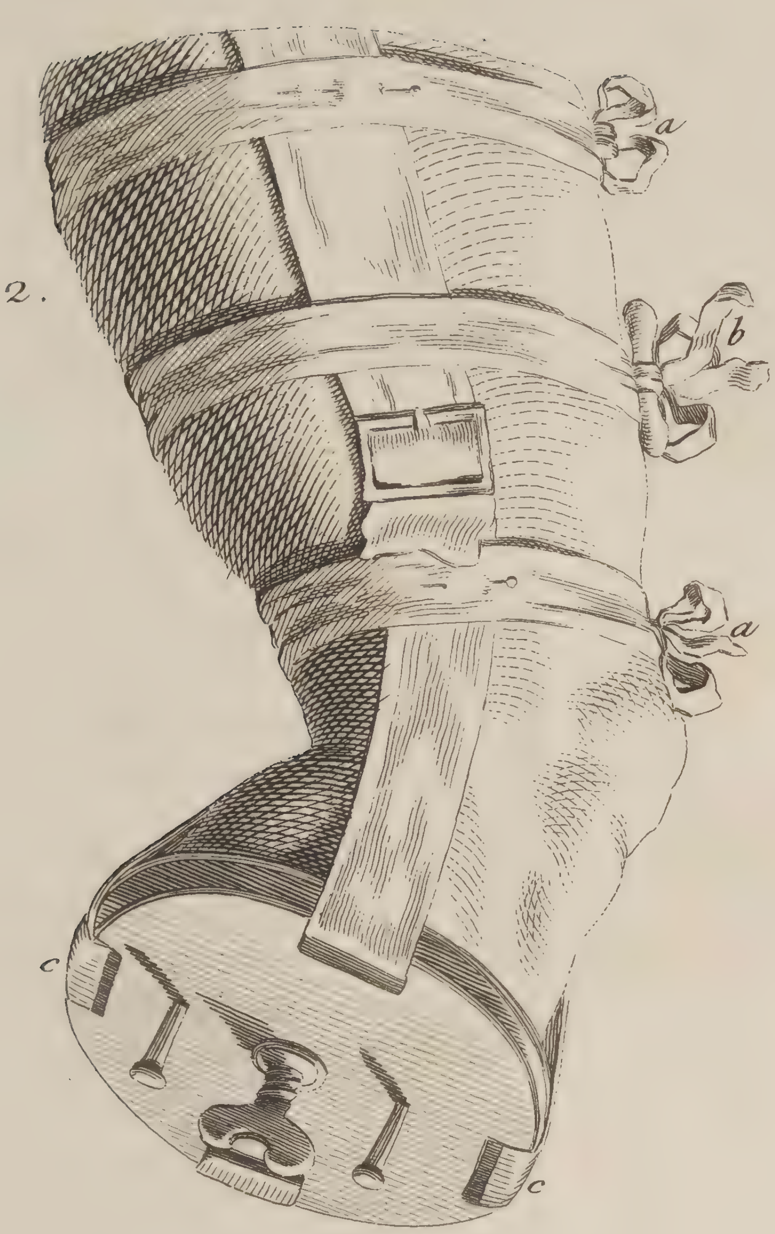
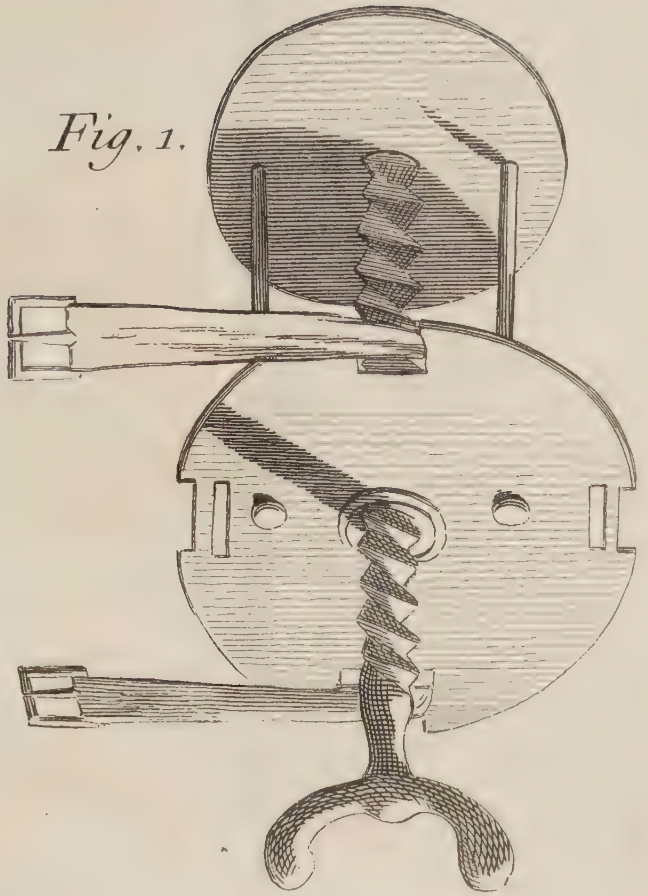


Fig. 1.



The opinion concerning coagula of blood plugging up the arteries after amputation of a limb, briefly conſidered.

INGENIOUS men ſometimes offer experiments which are defective, or obſervations not well conſidered, to ſupport their favourite notions: and when men of the greateſt character and abilities advance any theory, urging at the ſame time an experiment, or obſervation to enforce it, we are too apt to yield our aſſent, without making ſuch inquiry into it, as every inveſtigator of truth ought to do.

THIS ſeems to have been the caſe in regard to Monſ. *Petit*, concerning *coagula* of blood being formed in the arteries, as the means of ſtopping the *hæmorrhage* after amputation. That great man, and thoſe who have adopted his notion, poſitively aſſert, that upon examining the ſtump after the death of the patient, they found *coagula* of blood continued up thoſe canals even to the length of four inches: but granting this to be a fact, it cannot be admitted as concluſive evidence of their exiſtence before, or till the patient is in *extremis*, when probably they may begin to be formed.

ACCORDING to that *Hypotheſis*, the coagulated blood muſt either remain in the veſſels or liquefy and return in a putrid ſtate; againſt either ſuppoſition, I think, many weighty objections might be brought, and experiments made to put the matter beyond controverſy. It appears to me highly reaſonable to ſuppoſe, that the native heat of the part, and the action of the veſſels, keep the blood in a ſtate of fluidity fit to be received by the collateral branches, when checked by natural or artificial means in its direct progreſſive courſe, after amputation of the limb, and that the divided veſſels then retracting, collapſe and coaleſce as far as their firſt ramifications, having their mouths ſoon ſealed up with fleſh, growing from the nutritious veſſels; which work of nature is pretty evident upon the ſtump. (*a*)

(*a*) Mr. *Kirkland*, a man of Character at *Aſhby de la Zouch*, in his uſeful treatiſe upon *hæmorrhages*, and *Monſ. Pouteau* Surgeon Major of the *Hôtel-Dieu* at *Lyons*, in his valuable Work entitled *Melanges de Chirurgie*, both publiſhed after the firſt Edition of my Caſes and Remarks in Surgery, have mentioned experiments confirming my hypotheſis and refuting *Monſ. Petit's*.

Of ſungous ſubſtances in reſtraining *hæmorrhages.*

THE uſe of fungous ſubſtances in reſtraining *hæmorrhages*, is the revival of an ancient practice, as appears from many undoubted authorities.

IF *Agaric* of the *Oak* could have been depended upon in all caſes, inſtead of the needle and ligature, a painful part of operations would have been ſpared, and it muſt then have been conſidered as a diſcovery worthy of the high encomiums beſtowed upon it by its advocates at firſt, who undoubtedly had the good of mankind in view. I uſed the *Agaric* twice ſucceſsfully in amputations below the knee, as appears by my letter to Mr. *Warner*, Surgeon to *Guy's* Hoſpital, which he deſired I would conſent to the publication of in the *Philoſophical Tranſactions* ; but it required great care in the application, and I never durſt venture to rely upon its power above the knee; ſtill it may be of uſe to a prudent Surgeon, and worth keeping by him.

I HAVE ſince made ſome experiments, by which it does not appear to me to have the characteriſtic of a ſtyptic, or to act by a corrugating property, but rather by its ſoft texture and adheſive quality; therefore, if that or any other ſimilar ſubſtance ſhould be farther tried in amputations, I would recommend the uſe of the compreſſive machine already mentioned, which Mr. *Layman* and I uſed in his patient's caſe, with great advantage.

FROM my own experience in many inſtances, *Puff-ball* is preferable to all other fungous ſubſtances in reſtraining *hæmorrhages*. (*a*)

(*a*) See more upon this ſubject in my treatiſe on Wounds.

A caſe in which the *Tibia* was affected to an extraordinary degree in a very ſhort time, by a critical diſcharge of febrile matter upon a leg, which had been fractured ſome years before.

J. A. of N. B. about 40 years of age, was ſeized in *February* 1740, with a fever, attended with moſt violent ſymptoms, and in about a fortnight, a ſwelling ſuddenly appeared upon the whole leg, accompanied with great inflammation and pain, and matter was ſoon diſcovered from the knee to the ancle, which upon opening was found very ill-conditioned, and the bone carious its whole length.

Mr. *Barker*, an old practitioner of great ſkill and experience, and his ſon were concerned; Mr. *Layman* and I being conſulted, ed, were of opinion that amputation was the only means of preſerving the patient's life.

UPON examining the limb after it was taken off, we found the *Tibia* full of purulent matter inſtead of marrow, which had corroded the bone quite through in an infinite number of places, and in two places it was totally divided, as appears by a repreſentation of it, in Pl. 16. Fig. 4. No part of the bone was free from the *caries*, but the *callus* had evidently moſt reſiſted the acrimony of the matter.

THE man was in a very bad condition to bear the operation, on account of the fever, a cough, &c. but it ſucceeded, and he recovered a good ſtate of health.

THE dreadful ravage the febrile matter here made in the boney compages, is a convincing evidence, to what a high degree of acrimony and corroſiveneſs animal juices may arrive in a ſhort time. (*a*)

(*a*) See *Ruyſch's Theſaurus Anatomicus*, and *Cheſelden's Oſteology* in Fol. relative to diſeaſed bones.——Doctor *Hunter*

Hunter has a great many of a very extraordinary nature and appearance in his collection. About two years ago he ſhewed me a ſurpriſing thigh-bone then ſent him from St. *George's* Hoſpital, which much reſembled in ſize and figure a five-pint bottle with a long neck turned downwards.——Alſo ſee *Honſtets* diſſertation *ſur les Exoſtoſes des Os cylindriques, en Mem. de l'Acad. Roy de Chirurgie.* Tom 3.

Pl. 16.

Fig. 1.

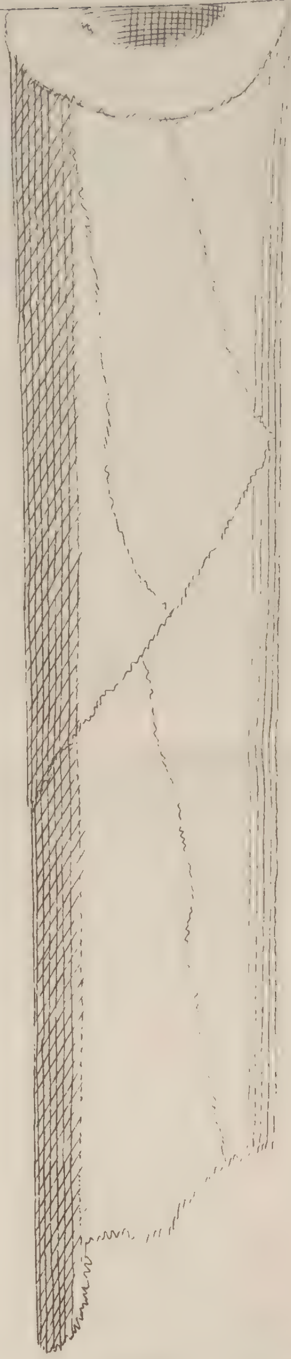


Fig. 2.

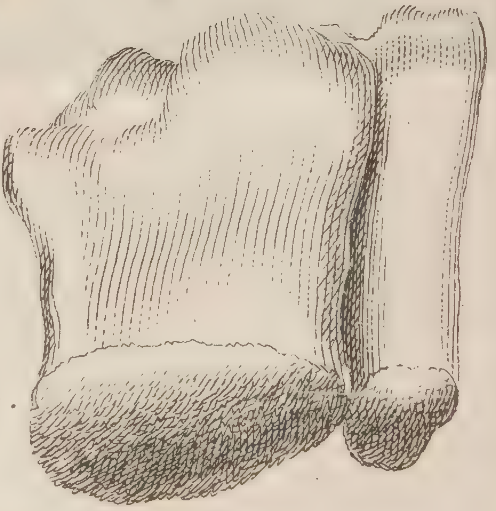


Fig. 3.

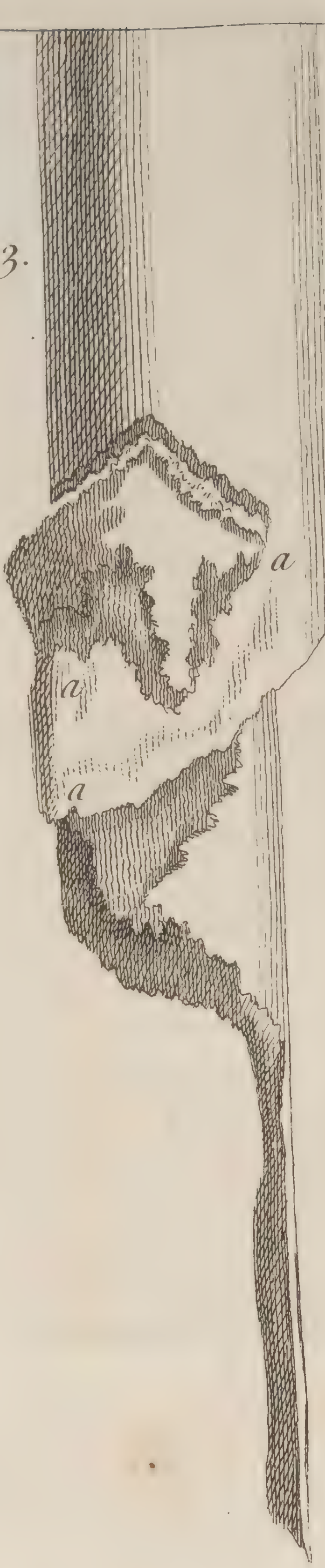
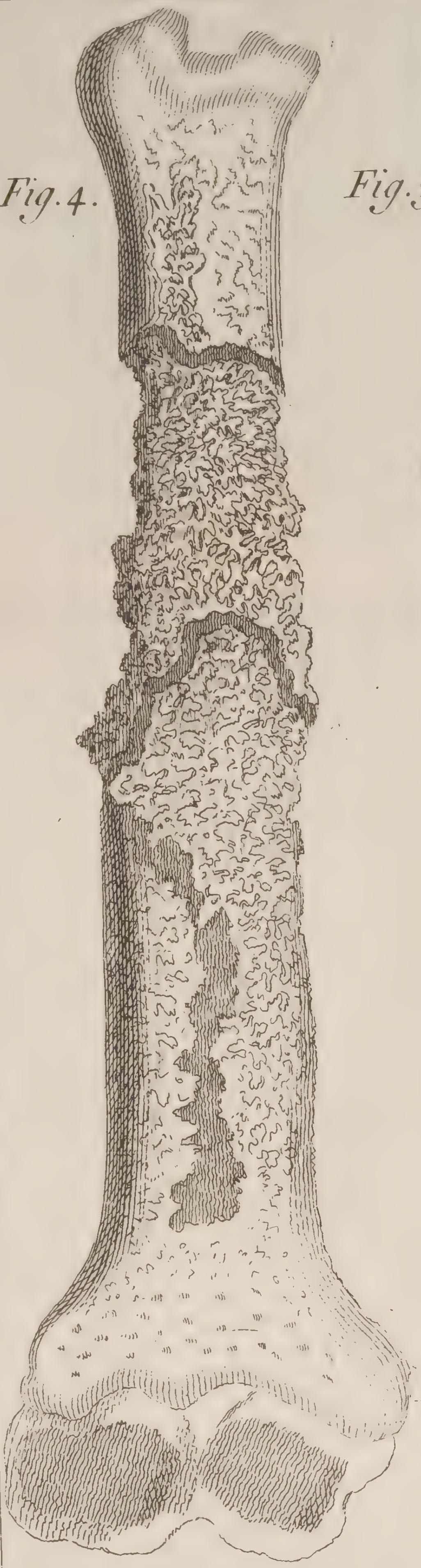


Fig. 4.



An ulcer with a *caries* of the *Tibia*, in which the actual cautery ſeemed of ſignal ſervice.

June, 1743.

I WAS conſulted for the Daughter of Mr. S. of W. at the deſire of her Surgeon. She was of a lax, cachectic habit, and had an ulcer upon her leg with a *caries* of the bone of about four years ſtanding, extending from three or four inches below the knee, near to the ancle-joint, which had been rationally treated by ſeveral Surgeons, without the uſe of the cautery.

AFTER carefully examining the caſe, finding the bone ſoft the whole length of the *caries*, and covered with hard ill-conditioned fleſh, growing unequally out of the bone itſelf to a conſiderable thickneſs,

I

I imagined that the firſt ſtep towards ſaving the limb muſt be to bring the bone into a ſtate of dryneſs, with the actual cautery, the whole extent of the *caries*, in order to prevent the growth of fungous fleſh from thence; for though many exfoliations had, from time to time, been obtained, yet they did not prove ſufficient to lay the foundation for healing.

As cauſtics had been long tried in vain to lay the bone bare and keep it ſo, the patient and her Surgeon readily conſenting, I cut quite round the ulcer to the bone, encompaſſing all the bad fleſh by the inciſion, then ſcraped it clean off, and as much of the ſoft bone along with it as was practicable, with a *ſcalprum*, and dreſſed with dry lint; two days after, when that was removed, the cauterization of the bone to dryneſs effectually prevented any future vegetation of bad fleſh to obſtruct the cure. Afterwards I perforated the bone in ſeveral places with a ſmall crown of the *trephine*, and found it affected in its whole thickneſs as I ſuſpected. The weakneſs of the bone confined the patient to her bed, and obliged us to keep the limb encompaſſed with a caſe of ſtiff paper for ſome time, as in a fracture.

In conſequence of this method ſuch exfoliations were obtained, as laid a foundation for the cure, which now proceeded very well; but it was a work of long time to complete it. Particular care was taken to correct the *Dyſcraſy* of her blood, by diet and medicine. She enjoys to this day good health and has no manner of complaint in the limb.

Though the actual cautery is juſtly decried in carious bones in general, by the ableſt Practitioners of the preſent age, yet this ſpecies of *caries* ſeems to require the uſe of it; and I am convinced, from ſeveral inſtances, that it admits of it to great advantage: it anſwered beyond our expectation in this particular caſe, and I never ſaw ſo ſtrong an inſtance of its efficacy. Though it muſt carry terror with it, yet this patient ſaid ſhe had ſuffered much more, to no purpoſe, by the application and frequent repetition of the cauſtics. (*a*)

When the dread of the patient will not allow of the uſe of the actual cautery in a caſe of this nature, after making the bone bare as mentioned, the *Lap. infernal.* or *Cauſt. commun. fort.* and *Spirit. Vitrioli.* may ſupply its place, in bringing the diſtempered bone into the ſtate of a dry *caries*, by firſt rubbing it well with a piece of the cauſtic, and then ſtriking a ſmall quantity of the ſpirit over it with a feather. This method I have alſo tried with good effect. ——*Le Dran's Eau Mercurielle* mentioned at the end of his Obſervations, which is a ſolution of *Argent. viv.* part 1. in *Aq. fort.* part 2. is an excellent application for this purpoſe as I have experienced.——— See notes at the concluſion of the chapter in my treatiſe on wounds, concerning applications to anſwer the different intentions of cure.

(*a*) Whilſt I dwelt at *Norwich* I ſucceeded by the ſame treatment, in a ſimilar caſe of more than ſeven years ſtanding, which was deemed incurable.

Celſus ſays. *De Morbis Oſſium. Oportet autem ante omnia os nudare, ulcere exciſo, & ſi latius eſt ejus vitium, quam ulcus fuit, carnem ſubſecare, donec undique os integrum pateſiat : tum id quod pingue eſt, ſemel iterumve ſatis eſt ad-*

moto ferramento adurere, ut ex eo ſquama ſecedat; aut radere donec jam aliquid cruoris oſtendatur, quæ integri oſſis nota eſt; nam neceſſe eſt aridum ſit id, quod vitiatum eſt. Idem in cartilagine quoque læſa faciendum eſt. Siquidem ea quoque ſcalpello radenda eſt, donec integrum id ſit, quod relinquitur.——See *Vander Linden's* Edit. Pag. 539, or *Almeloveen's*, Pag. 508, which is the beſt Edition.—— I have ſucceeded by ſcraping *cartilages*, according to *Celſus's* direction, particularly thoſe of the ribs.

Of a ſeparation of the *Epiphyſis Tibiæ.*

I WAS deſired ſome years ago to give my opinion in a caſe where amputation was thought adviſable, and propoſed, on account of a ſeparation of the *Epiphyſis Tibiæ* in a lad about ten years of age, in conſequence of a critical diſcharge of purulent matter in a fever.——Beſides this there was an extenſive and deep *caries* of the *Tibia*, over-run with fungous fleſh, attended with a great degree of pain.——The mercurial ſolution mentioned in the laſt caſe was of ſingular ſervice in ſubduing the *fungus*, and on that account highly extolled by the Surgeon, as he cou'd not keep it under before. Dry dreſſings then anſwered the end, the cure was in length of time effected, after having had large exfoliations, and the limb became perfectly uſeful.——In this caſe the tailed bandage, and paſteboard-caſe to keep the limb ſteady were uſed as in a compound fracture, confining the patient wholly to his bed: it equally required ſuch treatment; for the *Epiphyſis* was ſeparated from the bone, ſo as to give a ready admiſſion to the probe in different directions, and might well be conſidered as a fracture upon that account.

Of a moveable cartilaginous or boney ſubſtance in the knee, reſembling that which is mentioned in the 4th vol. of the *Medical Eſſays*, attended with very ſingular circumſtances.

IN *May*, 1762, an healthy young man, by trade a gardener, came to aſk my advice in this caſe, and told me he had got a very painful ſwelling in his knee; I examined the knee but cou'd diſcover no ſwelling, upon which he anſwered, I will ſhew it you, Sir, preſently, and then began to bend and extend the limb, preſſing the outſide and top of his thigh, juſt above the joint with his fingers, at the ſame time, and ſoon brought it to light on the inſide, from under the *rectus* muſcle near the ſuperior part of the *Patella*: and now, ſays he, I can ſhew it you on the other ſide, and did ſo directly by the ſame means, preſſing in the oppoſite direction, to my great aſtoniſhment, and then returned it to the place from whence it came. I did the ſame by the like manual operation, working with my fingers as he bent and extended the limb. This moveable body ſeemed to take always the ſame courſe as if conducted by a leading ſtring. During its quieſcent ſtate under the *rectus* he was free from pain, and could uſe his ſpade very well; but as ſoon as it ſlipt from that abode he loſt the uſe of his limb, and it was attended with great pain upon motion.

FROM theſe conſiderations, and his utter averſion to have this moveable body taken out by inciſion, I was willing to try what would be the effect of a knee-piece, ſo contrived and padded as it might be eaſy, and keep it fixed under the muſcle, in ſome expectation that it might in time adhere to the parts, and ſave the neceſſity of extirpation: for though he had ſome years before, now and then complained of a ſlight pain in his knee, which he thought to be rheumatic, yet he never diſcovered this knot, till immediately after a violent exertion in jumping over a ditch. As I have not heard of him for ſome years, hope this method was attended with ſucceſs. (*a*)

(*a*) The beſt manner of making a knee-piece to ſerve ſuch a purpoſe, is according to that mentioned by way of note in the chapter upon diſtorted limbs.

I HAVE removed two ſuch tumors by exciſion, which appeared more boney than cartilaginous; and believe I obviated bad accidents in conſequence of the operation, by confining the patients to their beds directly, and wrapping the knee immediately up in an anodyne poultice, prepared with bread, milk, and oil, which was applied at every dreſſing night and morning for ſome time. From Profeſſor *Simſon's* letter on this ſubject to Profeſſor *Monro*, inſerted in the 4th vol. of the 4th Edit. of the *Medical Eſſays*, Pag. 246, we may infer that dreadful conſequences may enſue, through want of attention to ſuch precautions.

A ſingular diſlocation of the *Aſtragalus.*

November the 30th, 1749.

MR. C. of W. falling with a ladder when he was near the top, his leg and foot fixed in ſuch a manner between the ſtaves, that the *Apophyſis Tibiæ* catching hold of the *Aſtragalus,* wrung it out of its place, turning it upſide down, and almoſt through the ſkin at the inſtep; the *Tibia* then reſted upon the *Os Calcis* inſtead of the *Aſtragalus,* and the *Fibula* was thrown through the ſkin.

In this ſituation of the bones they formed a kind of an arch, which rendered all attempts to reduction in vain; for the greater the extenſion and preſſure made to that purpoſe, ſo much the more was the reſiſtance to reduction.

I was joined in conſultation with three able Surgeons the next day, and all things conſidered, we unanimouſly thought it adviſable to amputate the limb forthwith.

The patient ſurvived the operation twenty-ſeven days; but a profuſe *hæmorrhage* happened from the ſtump on the eighteenth day, and I got to him but juſt time enough to prevent his bleeding to death. I believe he loſt his life through his own obſtinacy and the imprudence of the nurſe, in departing abſolutely from our ſtrict injunctions.

A mortification in a man aged eighty-one, where the *Bark* ſeemed to be of great ſervice.

Auguſt the 24th, 1731.

I WAS called to J. H. of M. and found a deep mortification about the breadth of a crown-piece upon the ſide of his foot. Conſidering his age, his having been confined to his bed many years, and that he was a drinker of ſpirituous liquors to exceſs, there could be but little expectation of curing him; yet it was neceſſary to prevent his becoming noiſome to himſelf, and every body about him whilſt he lived, which I confeſs I thought would be but a ſhort time, as I told the pariſh officers who ſent for me.

I DIRECTED a gummous and ſpirituous application and a warm *cataplaſm* to the foot twice a day; that he ſhould take a doſe of an electary of the *Bark* and *Snake-root* every three hours, waſhing it down with a glaſs of anniſeed-water, which had long been his favourite liquor; and that his diet ſhould be of good nutriment, warm and ſpicy.

AFTER regularly perſevering in this method about a month, there was a ſeparation of the dead parts from the living, at the junction of the *Oſſa cuneiform.* and *metatars.* where I disjointed the foot, without any pain or loſs of blood, and the ſtump was perfectly healed in three months. After this the poor creature lived more than a year, with as good health as for many years before, drinking gin or anniſeed-water to the day of his death, ſaying he could not live without it, and that my indulging him with it, he was ſure ſaved his liſe. (*a*)

SOME years after I disjointed a poor girl's foot at the ſame place, on account of a *Sphacelus* occaſioned by her laying abroad in

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(*a*) In ſome inſtances of mortifications, I have ſeen ſingular good effects from giving the *Bark* in much larger quantities than commonly preſcribed.

in a froſty night. She was greatly neglected, yet nature had made a ſeparation of the dead parts from the living almoſt quite round, and to the bones in ſome places, before ſhe was committed to my care. The ſtump healed without any extraordinary trouble, and ſhe walked much better than ſhe could have done with an artificial leg. ——Bearing down the lower part of the foot ſtrongly, whilſt an aſſiſtant keeps the upper part ſteady, after having cut the ligaments on the top, very much facilitates the disjunction of the bones.

A ſcirrhous tumor upon the heel, of a very threatening aſpect, ſucceſsfully extirpated.

December the 29th, 1755.

MR. J. P. aged about twenty-five, of a good conſtitution, ſhewed me this tumor, and told me that he believed it proceeded originally from an external injury received about twenty years ago. In four or five years it grew gradually to the ſize of a pigeon's egg, was moveable and exquiſitely painful, eſpecially in the night when warm in bed. He took the advice of a Surgeon about that time, who applied a cauſtic, which did not penetrate far into it; the application of the cauſtic was repeated ſeveral times to no purpoſe. After this treatment the tumor increaſed faſter than it had done at any time before, and in a few years acquired the magnitude of a hen's egg. Thus it remained many years, attended with ſuch exquiſite ſenſibility, that he could ſcarce bear to touch it in the gentleſt manner; and this was the ſtate of it when he applied to me.

The tumor now extended from the point of the heel, and was attached in its whole extent, to the *Tendo Achillis*. Under theſe circumſtances, there appearing in conſultation, no probability of relieving the patient otherwiſe, I was encouraged to undertake the extirpation of it; but firſt prognoſticated that it might ſhew itſelf of a very ill character after the operation, yet the patient having endured ſo much with it many years, and it growing daily worſe, deſired to take his chance for a cure. In the operation I cut as cloſe to the bone of the heel as I could, without leaving it bare, and carefully diſſected the tumor from the tendon; the operation was exceſſively painful, but the wound healed very kindly, and the patient was amply rewarded for his reſolution, by a ſpeedy cure and continuing well to this day.

A ſcrophulous *caries* of the *Os Humeri*, &c, cured after being ill treated, and the limb condemned to be taken off.

February the 2d, 1742.

MR. D. R. of M. put his daughter, aged about fifteen, under my care, after having been under that of two practitioners, who had the misfortune to want a regular education in Surgery, and to be quite ignorant of Anatomy. In opening a *ſinus* up the arm from the joint in an oblique direction, they totally divided one of the *extenſors* of the wriſt, and wondered, as well as the patient's father, at ſeeing the hand inſtantly fall, when the inciſion was made at ſuch a diſtance: they had alſo injudiciouſly paſſed a ſeton under the tendon of the *Biceps*, which cauſed great pain every day by its irritation upon moving it; and they had introduced tents and hard doſſils into ſeveral *ſinuſes*, frequently covering them with *Eſcharotics*, to conſume luxuriant fleſh that was perpetually growing up.

UNDER this treatment I found the limb exceedingly ſwelled, inflamed and painful, eſpecially round the joint, which was become quite ſtiff, and an extenſive *caries* upon the *Os Humeri*, ſeeming to penetrate deep into its ſubſtance: a continual fever was kept up by putrid matter paſſing into her blood; and probably other acrimonious particles mixed with it, from the frequent application of the *Eſcharotics*; which by keeping her in conſtant pain and breaking her reſt, added much to the fever.

I THREW out the tents, hard doſſils and ſeton forthwith, dreſſed ſuperficially with dry lint and a ſoft cooling *cerate* over it, treating the caſe in all reſpects in the eaſieſt and gentleſt manner; by which means it ſoon had a more favourable appearance: ſhe was immediately freed from the tormenting pain ſhe had long endured, and found a ſenſible abatement of the fever, which went off gradually.

By this gentle kind of treatment, nature not being interrupted in her work, caſt off thick exfoliations from the carious bones, and effected a cure in about ſix months after the condemnation of the limb: which is now as uſeful as an *Anchyloſis* at the elbow joint, with an impoſſibility of raiſing her hand, will admit of; and ſhe is capable of almoſt every kind of family buſineſs.

A tumor of the lymphatic kind, of an enormous ſize, upon a woman's arm between ſixty and ſeventy years of age, extending from above the elbow to the wriſt, which had been gradually increaſing more than fifty years, and then turned cancerous.

SOME years ago, my friend Mr. *Cooper*, whom I have already mentioned, ſhewed me this tumor, when it could eaſily be moved upon the muſcles; and the woman then had the free uſe and motion of her hand, fingers and elbow-joint.

THE tumor was little or no pain to her, but what aroſe from its weight, which ſhe ſupported with a ſling; the circumference of it then was near four feet, meaſuring from the elbow to the hand, and ſhe reſolved to carry it to the grave with her.

About two years after, it beginning to have a cancerous aſpect, and there being reaſon to fear it would become very offenſive to herſelf and every body about her, ſhe was adviſed in a conſultation of four Surgeons, to have her arm taken off; but ſhe then abſolutely refuſed to ſubmit to the operation: ſome months after, when ſhe had experienced what ſhe was told would in all probability be the conſequence of keeping her limb, ſhe was very deſirous of loſing it, but it was then too late; a fever and *Diarrhœa* ſeized her ſoon after, and releaſed her from her miſerable condition.

This tumor appeared to us vaſcular and veſicular; for we could not be ſenſible of a fluctuation, as in a quantity of a fluid collected together. The ſtench was ſo offenſive immediately after her death, that Mr. *Cooper* durſt not examine into the nature of the tumor. In the *German Ephemerides* we read of a tumor of this nature upon a woman's arm of a moſt prodigious ſize.

A tumor of the *ganglion* and *ſteatomatous* Species mixt together.

June the 4th, 1734.

MR. R. W. a very robuſt man, aged about forty, aſked my advice concerning a large tumor without any external inflammation, extending from his wriſt to the middle of the back of his hand, which he told me was occaſioned by a violent ſtrain three or four years before, and that it was now become extremely painful; his hand was entirely uſeleſs, hanging down and making a right angle with the fore arm, no proper care having been taken to ſupport it.

Upon opening the tumor I found a fluid like the white of an egg, with a great many lumps of a ſubſtance ſuſpended in it, reſembling in color and form cloves of peeled garlic [*]. I cut away immediately as much as I could of the *cyſt*, the reſt digeſted off, and by the common treatment the cure was eaſily effected ſo far as to heal the ulcer; but it was a long while before the contractile power of the muſcles could be recovered to elevate the hand, and the motion of the fingers was reſtored with equal difficulty, the tendons, by long diſuſe, being grown very rigid, and the *Synovia* in their ſheaths inſpiſſated.

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[*] I am inclined to think, as I have before mentioned, in the chapter on *Wens*, that this kind of ſubſtance reſembling ſuet, in thoſe called *ſteatomatous* tumors, is only inſpiſſated lymph: and I believe the three tumors there ſpecified, under different appellations, are all of a lymphatic nature, the lymph in their contents appearing under different degrees of inſpiſſation.

THE uſe of the machine deſcribed in Pl. 15. to keep up his hand, and ſo contrived as to give an opportunity of moving the joints of the wriſt and fingers, contributed very much to regain their motion. He kept the parts about half an hour twice a day, in a warm decoction of ſheeps trotters to relax the rigid *fibres* and attenuate the inſpiſſated *Synovia*. (*a*)

AFTERWARDS

(*a*) The proper degree of heat for baths and fomentations, is that which gives a pleaſing ſenſation of warmth to the parts, as it relaxes them and fuſes the ſluggiſh, inert matter, putting it in a condition to be propelled by the action of the ſolids; but they will have quite contrary effects, if the heat be intenſe and gives pain. I have found a vapor-bath very efficacious in relaxing rigid fibres; but for limbs obſtinately rigid and contracted, Afterwards, when the wriſt and fingers could bear to be moved freely without pain, I ordered that cold water ſhould be pumped upon them every morning, for a few minutes, by which the tone of the parts was perfectly reſtored, and the patient uſed his hand, in five or ſix months, almoſt as well as he did before the accident. The

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[illegible] ted, nothing is ſo efficacious as having the water of natural tepid baths pumped upon them, uſing proper relaxing embrocations immediately after, gently moving and extending the limb, at the ſame time; for ſuch motion is abſolutely neceſſary to accompliſh the point in view under theſe circumſtances. I know the happy effect of ſuch waters, by experience in my own caſe, which required my going twice to *Bath*.

Explanation

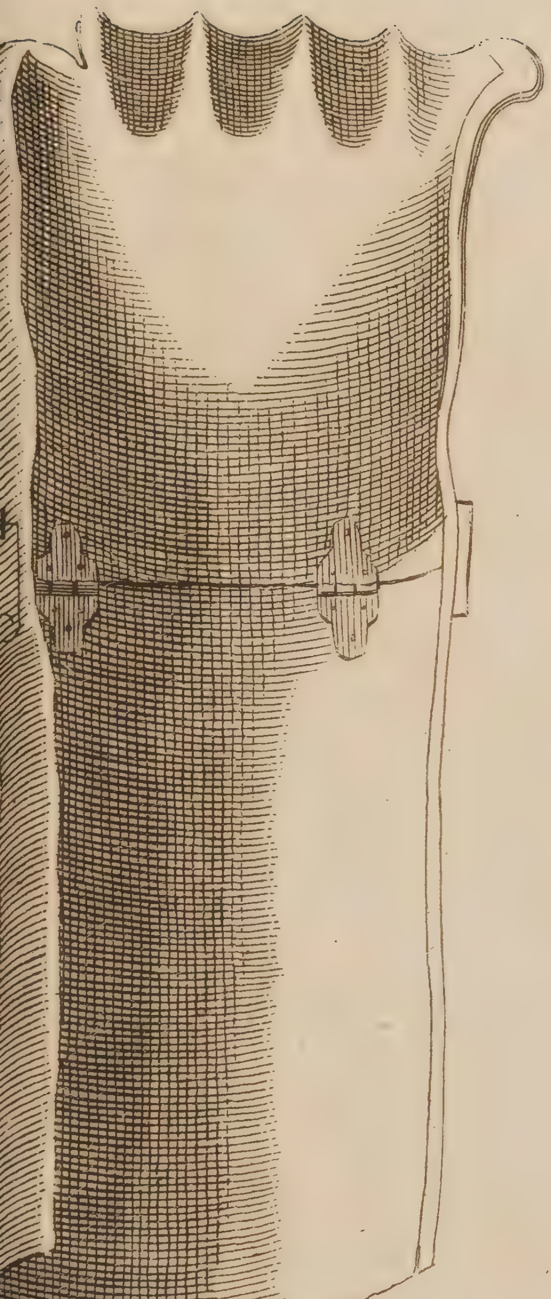
Explanation of PLATE 15.

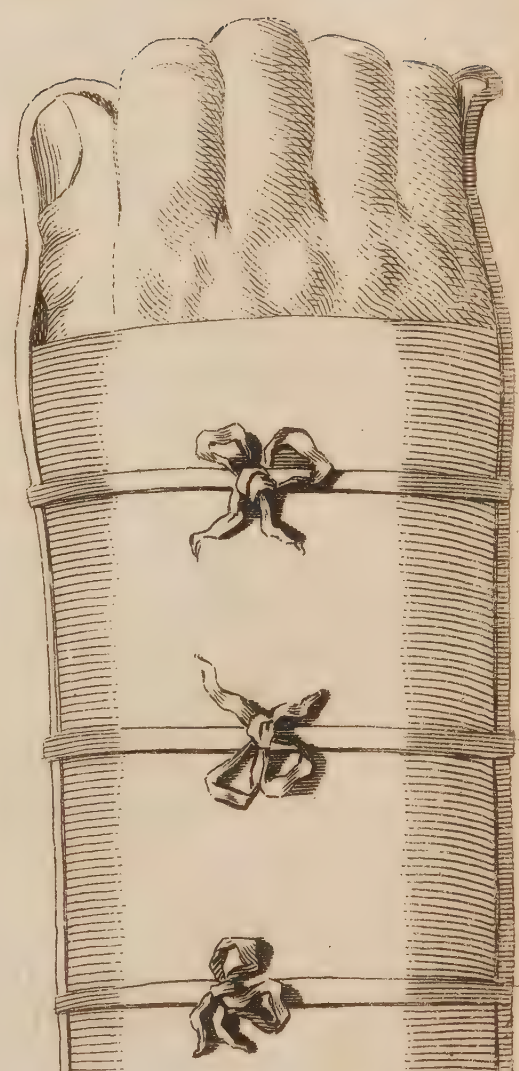
This machine ſhould be made a little concave, of light tough wood, ſuch as beech, willow or alder; and be covered with leather to be glued unto the wood. Its dimenſions for a limb of a common ſize ſhould be about ten inches long and three and a half broad. Beſides the hooks ſhewn upon the ſides, it ſhould have one in the middle. It is to be confined to the limb with fillets tied upon ſtiff paper as deſcribed.

I have found this very ſimple machine of ſignal ſervice in luxations of the wriſt, and in fractures near that joint, as well as in other caſes where it is neceſſary to have the hand ſupported, and alſo occaſionally kept in gentle motion to preſerve the flexure of the joint; and it has been much approved by many of my Brethren.

Rulē-joints may be uſed to more advantage, where there is no occaſion to drop the hand; and they will allow of a little motion upwards; when they are uſed no hooks are required upon the machine.

Pl. 17





A wound of the *tendons.*

Auguſt the 19th, 1736.

J. P. of T. an healthy ſtrong man, in the time of harveſt, having his ſickle ſtuck in the ſide pocket of his breeches, according to the cuſtom of reapers when they bind up their ſheaves, and by throwing a ſtone in ſport at one of the gleaners, the ſickle catched his arm, in its full ſwing and force, and totally divided the *Flexors* about two inches above the wriſt. The man being hot at his work, the wound bled profuſely, but one of the women had preſence of mind and reſolution to tye her garter ſtrait about his arm, which effectually reſtrained the *hæmorrhage* till I got to him.

THE ends of the divided *tendons* were drawn far aſunder, but by bending the wriſt and forcing down the muſcles, I brought them into contact as much as I poſſibly cou'd, keeping them ſo by ſtitching and bandage. The wound healed kindly, and was quite cicatrized in little more than a month; he recovered the perfect uſe of his arm, hand and fingers ſoon after, but ſenſation was deſtroyed below the wound, and never after reſtored.

THE notion of healing by the firſt intention, being now, I believe, pretty generally exploded, ſtitching of wounds will conſequently be leſs practiſed; though it may ſtill be found uſeful and neceſſary in ſome caſes.

THOUGH I was not ſenſible of any inconvenience ariſing from ſtitching in this wound, yet I am inclined to think, that it would in general be better omitted in tendinous or membranous parts. I have been concerned in two caſes where the *Tendo Achillis* was totally divided by cutting inſtruments; one of theſe wounds I ſtitched, the other I did not; both were cured without ill accidents, but that which I did not ſtitch I thought healed more kindly than the other. I uſed *Petit's* bandage, deſcribed in his Treatiſe upon Diſeaſes of the Bones, in both caſes. Bending the knee a little and extending the foot is evidently the proper poſition to keep the limb in on this occaſion. There is a very ingenious and excellent contrivance for the ſame purpoſe as *Petit's* bandage, invented ſince by Profeſſor *Monro* for himſelf, in the firſt Volume of the *Edinburgh Eſſays and Obſervations*, phyſical and literary.

As a Horſe is the nobleſt animal of the brute creation, and the moſt uſeful to man, I doubt not but I ſhall be readily excuſed in ſaying a word or two here, concerning an accident which happened to a valuable one of my own, by the careleſſneſs of a ſervant, where the *tendon* of the fore leg, whoſe uſe is ſimilar to the *Tendo Achillis* in the human ſpecies, was totally divided in the middle, and the ends conſiderably ſeparated; which wound was perfectly cured without ſtitching, by Mr. *Clover* of *Norwich*. The horſe now travels without impediment; but by uſing him rather too ſoon, after the wound was healed, I was under a neceſſity of giving him reſt after-

wards.

wards. The machine Mr. *Clover* invented on this occaſion, as repreſented in Pl. 13. Fig. 2. contributed much to the cure, which probably could not have been effected without it; and ſuch an invention has been of more ſervice to him ſince, in the cure of a fracture upon a horſe's leg, by which it was performed without difficulty; but in that caſe he added a thin concave plate, adapted to the fore part of the leg, to defend it, and alſo to ſtrengthen the machine, very ingeniouſly made and connected to that behind, reſting upon the *coronet*, by a contrivance coming up thither from the toe of the ſhoe, to keep it ſteadily fixed to that part: and with theſe additions the machine is better accommodated to ſerve the purpoſe in the diviſion of a *tendon*; through want of ſuch a defence on the fore part, my horſe's leg was galled.

Mr. *Clover's* letter concerning the uſe of the machine deſcribed in Pl. 13. Fig. 3.

Norwich, Dec. 15th, 1766.

SIR,

AT your deſire, I have attempted to delineate the machine, which ſucceeded beyond my expectation, in the cure of a fracture upon an horſe's leg, without the uſual method of ſuſpending him, which is attended with many inconveniences.—— I am afraid you will not think the machine clearly enough ſhewn in my ſketch; for not being well acquainted with perſpective, I muſt confeſs myſelf at a loſs to project upon paper, the figure of it, to my own ſatisfaction; and therefore doubt of its being ſo intelligible to others as it ought to be: but, perhaps your Engraver may rectify its defects, if he conſiders its uſe, and reads the following explanation of it.

A. G. and B. H. the two chief ſupporters of the leg, are made of ſuch length as to reach from the knee of the fore leg, or hock-joint of the hind leg, to the parts of the ſhoe marked I and K. A. G. being made thin and concave to receive the fore part of the leg. And B. H. flat and ſtronger, eſpecially from N. to H. in order to ſupport the weight of the horſe without bending at N, where a thin plate is affixed on each ſide, ſuitably concave to receive the fetlock-joint, which effectually prevents the turning of the machine to either ſide. The circular parts C. D. and E. F. are made thin and turned back about an inch at the ends O. P. and Q. R. for the convenience of introducing the ſcrew-pins, and fixing them to the neceſſary degree of tightneſs. The other circular part S. T. will be ſufficiently ſecured by a ſmall leather ſtrap with a buckle. In each longitudinal plate ſeveral ſcrew-holes ought to be made, between B. and N. A. and X. the better to fix the bows C. D. and E. F. in the moſt convenient and neceſſary parts; and the upper one being covered with woollen liſt, or ſomething ſoft, may be placed in ſuch manner under the knee, or hock-joint, as to receive a portion of the horſe's weight, and in ſome degree, prevent the ends of the fractured bone from preſſing too hard upon each other.

When the whole machine is put together, the end H. goes through the hole of the ſhoe K. and by a ſcrew is faſtened to the heel marked M. which may be made higher or lower at diſcretion ; and the end G. is to paſs through I. in the part L. Z. turned up from the toe of the ſhoe to the top of the *Coronet* of the foot, where it is to be ſecured with a ſcrew through the holes G. and L. by which means, and by the ſcrews at C. D. E. F. and T. the whole may be put together or taken to pieces, with very little trouble, as circumſtances require.——I wiſh I cou'd have better repreſented the concavity in the pillar A. G. which by being ſo made is both ſtronger and lighter, beſides being adapted to receive with greater eaſe, that part of the limb.---The whole of the machine, which I made upon this exigence, ſhoe and all, weighed but two pounds and three quarters, for an horſe fifteen hands and an half high, which had his hind leg badly broken, and was cured, ſit for work, in about twelve weeks.

It will give me much pleaſure, if what I have ſketched with my pencil and written, may anſwer your good deſign of communicating to the world, what may prove beneficial to the nobleſt creature of the brute creation, and ſo uſeful to mankind that he ought by no means to be neglected.——The machine conſtructed as here directed, I believe wou'd have anſwered the purpoſe better in your horſe's caſe, with the total diviſion of the *tendon*, than that which was uſed, and effectually have prevented ſome inconveniences, which occurred in the cure of that wound.

I hope to hear your health is improving, and the more ardently pray for the perfect recovery of it, well knowing it will tend to the good of others.

I am,
Sir,
Your much obliged
and faithful humble ſervant,
JOS. CLOVER.

In the cure of a *tendon* ruptured, or totally divided by inciſion, when there is good reaſon to ſuppoſe the parts may be ſufficiently agglutinated, great care is requiſite in dropping the heel, which ſhou'd be done gradually, for obvious reaſons; as, ſhou'd not the union of the *tendon* be deſtroyed, by bearing upon the limb too ſoon, it may ſwell, occaſioning pain, and ſome degree of lameneſs; which was the caſe in reſpect to my own horſe, as has been mentioned; though now he travels well, without being more ſtiff after a long journey than before it: ſome ſtiffneſs was unavoidable, as the *tendon* cou'd not have its natural free motion in its ſheath preſerved.

A very extraordinary Burn.

July the 15th, 1757.

M. H. ſervant to Mr. K. of T. aroſe between two and three of the clock this morning, in a violent tempeſt of thunder and lightning, and went into her maſter's room, where ſhe ſtruck fire, and whilſt ſhe was lighting a candle, having no covering but her cap, ſhift and one petticoat, a fiery meteor, accompanied with a moſt tremendous clap of thunder, broke through the roof of the houſe, and deſcended to this room, which was upon the ground floor, and burnt her from the crown of her head to the ſoles of her feet and fingers ends, in a moſt dreadful manner indeed. Her maſter, in the utmoſt conſternation, jumped out of bed, firſt extinguiſhed the fire upon her cap, &c. then running out abroad, ſaw the roof blazing in a narrow compaſs, raiſed a ladder inſtantly, and poured water into the hole where he ſuppoſed the fire-ball paſſed, but to no purpoſe,

poſe, the houſe being all in flames before any aſſiſtance could be procured.

In this hurry and confuſion the woman was ſome time neglected, and when carried out of the houſe had neither ſenſe nor motion; ſoon after ſhe diſcovered ſome ſigns of life, but remained many days without ſenſes or ſight, though her eyes were not burnt ſo much as the other parts. The burn grew every where exquiſitely ſenſible to the touch, and uncommonly painful; a moſt violent fever immediately enſued, attended, after about a week's continuance, with as thick a thruſh as I ever ſaw. We almoſt deſpaired of her life; but at length ſhe recovered, and has her ſenſes, ſight, and uſe of her limbs, perfectly.

The dreſſings were chiefly *Ol. Lini* and *Cerate* prepared with that, *Cera* and *Unguent. e Floribus Sambuci.* Bleeding repeatedly was found neceſſary, and an exact obſervance of the Regimen adviſed in inflammatory fevers, with the frequent uſe of *opiates* to aſſwage the intolerable pain and ſoreneſs of the parts, taking particular care to keep her body open.

Some extraordinary effects of a fever.

June the 26th, 1740.

I WAS accidentally called in to ſee the ſon of J. P. of B. between 13 and 14 years of age, whom I found ſpinning at the wheel, totally deprived of hearing and ſight, but it was his deafneſs I was deſired to give my advice in; for the very globes of his eyes were ſunk in their orbits, and left his parents not the leaſt hope of his ever ſeeing again, nor could I give them any hopes of his ever hearing, after having examined his ears.

THE account they gave me of this poor unfortunate creature was, that about ſix months before, he was ſeized with a violent fever, which ſoon deprived him of his ſenſes, and that it was eight or nine weeks before they had any expectation of his ſurviving it; but, being very poor, no medical aſſiſtance was procured for him. During this time he totally loſt his hearing and ſight, the color of the hair of his head was changed from a dark brown to almoſt white, and was as ſoft as an old perſons of eighty or ninety, excepting on the *Vertex*, where it retained its natural color about the breadth of a crown-piece ; the hair of his eye-brows had ſuffered the ſame alteration : I alſo obſerved along the courſe of the *coronal*, *ſagittal* and *lambdoidal ſutures*, boney ridges half as thick as my finger.

The boy now appeared in good health and in a thriving condition, did not ſeem to want underſtanding, and could find his way alone to ſome houſes at a conſiderable diſtance, where he uſed to go formerly, and had gone ſince the loſs of his ſight with his mother.

About ſeven years after, as I was travelling that way, my curioſity led me to inquire after and ſee this perſon again. His mother led him to me, I obſerved the hair of his head rather whiter, lank and ſoft, and brown upon the crown of his head as when I ſaw him before ; his beard was now beginning to ſprout, which was the natural brown color of his hair, his face looked ſtill rather boyiſh, but there was a very ſtrange mixture and appearance of youth and old age in it.

A caſe of fragility, flexibility and diſſolution of the bones, which I drew up formerly at the requeſt of a friend, in order for him to tranſmit to Doctor *Pringle*,* who deſired an account of it, to communicate to the Royal Society.

MARY Hayes, of *Stoke-Holy-Croſs* near *Norwich* in *Norfolk*, was born *January* the 11th, 1718; had never been married, and always lived a regular, temperate life: her father was unhealthy, but it is not known to what diſeaſe he was ſubject: her mother was healthy; and ſhe herſelf was always looked upon as a ſtrong healthy girl, till about fifteen years of age, when ſhe fell into the green-ſickneſs, and took various medicines to no purpoſe. She had no other complaints till *October* 1748, when ſhe was ſeized with pains univerſally, attended with feveriſh ſymptoms; and thus ſhe continued ſome weeks, after which the pain was chiefly confined to her legs and thighs, but not increaſed by external preſſure.

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* Now Sir *John Pringle*, Phyſician to the Queen.

SHE broke her leg in *June* 1749, as ſhe was walking from the bed to her chair without falling down, and heard the bones ſnap. The fracture was properly treated by one of the ableſt Surgeons, and due regard had to her indiſpoſition; no *callus* was generated, but the bones grew flexible from the knee to the ancle, in a few months: thoſe of the other leg and thigh were viſibly affected ſoon after, in the like manner; and both legs and thighs then became *œdematous* and ſubject to excoriate, diſcharging a thin yellow *Ichor*. About this time I firſt ſaw her with the Surgeon who had the care of her.

THE winter after breaking her leg, ſhe had ſymptoms of the ſcurvy, and bled much at the gums.

MANY eminent Phyſicians preſcribed for her, but without any effect, unleſs the regularity of her menſtruation for the laſt 18 months be aſcribed to chalybeate medicines, which were part of their preſcriptions; tho' the ſame kind of medicines were formerly preſcribed, and long continued, without having that effect, even when ſhe was in a condition to take exerciſe.

About a year before her death, ſhe was removed to the pariſh ſhe belonged to, where I had an opportunity of viſiting her often, and obſerving the progreſs of her diſeaſe. She told me, ſhe had found but little alteration of her complaints in general for ſome time paſt, and thought her appetite and digeſtion rather mended: ſhe breathed with difficulty, and her *Thorax* appeared ſo much ſtraitened as neceſſarily impeded the expanſion of the lungs: her *ſpine* was much diſtorted, and any motion of the *vertebræ* of the loins excited extreme pain: her legs and thighs being quite uſeleſs, ſhe was confined to her bed in a ſitting poſture: the bones ſhe reſted upon having loſt their ſolidity, were much ſpread, and the ends of her fingers and thumbs, by frequent efforts to raiſe herſelf, were become very broad, with a curvature of their *Phalanges*: ſhe now meaſured but four feet, though before this diſeaſe ſhe was five feet and a half high, and well ſhaped.

From this time I obſerved the flexibility of her bones became gradually more general, and the difficulty of breathing increaſed, with a waſting of her fleſh. For the laſt four months of her life ſhe had a total ſuppreſſion of the menſtrual diſcharge, and a great tendency in her legs to mortify, which had long been anaſarcous and excoriated almoſt all over. She retained her ſenſes perfectly to the laſt, and but a few minutes before ſhe died, talked concerning her miſerable condition and approaching end, in a very rational and compoſed manner, with her nurſe, who perceived no ſigns of the change which was juſt at hand; then reclined her head, and expired inſtantly without a groan.

Two days after her death, which happened on *February* the 6th, 1753, her limbs being firſt well ſtretched out, ſhe was meaſured and found wanting in her natural ſtature two feet and two inches. I opened the *Abdomen* and *Thorax*, removing the *Sternum* entirely, with ſome portion of the ribs, in order to gain at once a full view of thoſe cavities, and to obſerve how the *viſcera* contained in them had obſtructed each other, in their reſpective functions, as well as to inſpect the ſtate of them. The *heart* and *lungs* were ſound, but flaccid and much confined in their motion, to which the enormous ſize of the liver contributed in ſome meaſure, extending quite acroſs the *Abdomen*, and bearing hard againſt the *Diaphragm* by its increaſed gibboſity: the *lungs* did not adhere to the *Pleura*, nor was the *liver* ſcirrhous, it was faulty only in its bulk: the *meſentery* was ſound, except one large ſcirrhous *gland* in it: the *ſpleen* was extremely ſmall. Nothing elſe was found obſervable in theſe cavities.

All her bones, except her teeth, were more or leſs affected, and ſcarce any would reſiſt the knife; thoſe of the *Head*, *Thorax*, *Spine* and *Pelvis* were nearly of the ſame degree of ſoftneſs; thoſe of the lower extremities were much more diſſolved than thoſe of the upper or of any other part; they were changed into a kind of *parenchymous* ſubſtance like ſoft dark coloured liver, without the leaſt offenſive ſmell. I cut through their whole length without turning the edge of the knife, and found leſs reſiſtance than firm muſcular fleſh would have made, meeting only here and there with boney *Laminæ* thin as an egg-ſhell.

THOSE bones were moſt diſſolved, which in their natural ſtate are moſt compact, and contain moſt marrow in their cavities. This circumſtance may appear the more worthy of obſervation, as it held throughout, and looks as if the wonderful change they had undergone, was occaſioned by the marrow having acquired a diſſolving quality; for it was evident, that the diſſolution began internally, by the boney *Laminæ* remaining here and there on the outſide and no where elſe, and the pain in the beginning of the diſeaſe not being increaſed by external preſſure.

THE *Perioſteum* was rather thicker than ordinary, the *Cartilages* thinner, but no where in a ſtate of diſſolution like the bones.

I INTENDED to have opened the ſkull and examined the brain, had I been allowed time enough; but there was no reaſon, from any complaints, to ſuſpect a defect in that part.

An eminent Phyſician and Surgeon were preſent at this examination of the body. Some time after, I ſhewed ſpecimens of the diſſolved bones to Sir *John Pringle* in *London*, and then ſent them to Doctor *Hunter*, who has occaſionally exhibited them in his anatomical lectures.

I also ſent ſome of the ſame ſubſtance to an ingenious Chymiſt, deſiring him to analyze it, with the utmoſt care and exactneſs, and he informed me, by the experiments he made, he could diſcover neither acid nor alkali prevailing in it; but that it contained near ſeven eights of an oleaginous ſubſtance, with a ſmall portion of earth.

July 1753 I ſaw a ſimilar caſe to this in a woman, aged 25, in the work-houſe at *Norwich*, under the care of Mr. *Swift*, an ingenious man, and a very able Surgeon. He obtained an order from the Court of Guardians to detain the body after death for our inſpection; but as ſoon as the woman was dead, what was intended to be done ſpreading abroad, a mob roſe and peremptorily demanded the body to inter it; and the maſter of the houſe delivered it, fearing bad conſequences might enſue upon refuſal; and ſo we were diſappointed in our intended inquiry.

In this woman's caſe the ribs, being grown very ſoft, fell with the *Sternum* flat upon the *lungs*, and obſtructed reſpiration to ſuch a degree, that when I ſaw her ſhe laid panting for life. The contrary happened in the caſe I have been given a narrative of; there the ribs and *Sternum* turned outwards, by which circumſtance reſpiration was not ſo much obſtructed, tho' the capacity of the *Thorax* was greatly ſhortened, and the *lungs* had not room to expand freely.

We meet with caſes of this nature in the *Philoſ. Tranſact.*——*Mem. de l'Acad. Roy. des Sciences.*——*Act. Hafniens.*——*German Ephem.*——In *Foreſtus* and *Saviard*; and a very extraordinary one of this kind was publiſhed at *Paris* by Doctor *Morand* in 1752.——I ſaw in the Hoſpital at *Bath*, a ſurpriſing caſe of fragility of the bones, ſuppoſed to proceed from a venereal cauſe; both arms and legs were then broken, and many other bones affected.

Of the cure of the *Thruſh.*

AS I think no perſon ſhou'd keep to himſelf the knowledge of what may prove beneficial to mankind, I publiſh in this manner the following medicine, which I know, from much experience, may be relied on in the cure even of the worſt kind of *Thruſh* in bad fevers; though indeed I have made no ſecret of it, but have mentioned it, as opportunity offered, to all my medical acquaintance, after I was ſo fortunate as to make a diſcovery of it above 20 years ago. It had long been in the poſſeſſion of a woman, who was ſent for far and near upon this occaſion, with conſtant ſucceſs, to which I had often been a witneſs. This induced me to offer her a conſiderable gratuity to divulge the ſecret, but though ſhe refuſed to do ſo, I have undoubted evidence, that the medicine I here mention is the very ſame as her's.

ITS compoſition is *borax* and *honey*; the proportion of a dram of the *borax* in very fine powder to an ounce of pure *honey*, juſt of ſuch conſiſtence as to ſuſpend the powder, is ſufficient to anſwer the end in common caſes, but in ſome, I have put in two drams, never more. I direct the patient to take a tea-ſpoonful or two of this *Linctus* every hour, after ſtirring it well together, ſwallowing it leiſurely, and in ſuch a manner as it may ſpread itſelf all over the mouth and throat. I have ſeldom known a bad *Thruſh* reſiſt the power of this medicine more than two or three days regular uſe of it. After the *Thruſh* is removed, the patient ſometimes complains of a ſmarting and tenderneſs of the parts, which are ſoon eaſed by frequently holding in the mouth a mucilage of *Sem. Cydon.* or a ſolution of *pulv. e Trag. comp. in aq. Roſar. damaſcenar.* to a mucilaginous conſiſtence, ſweetened with *Syrup. Mororum*: or by the uſe of a ſmooth emollient gargariſm.--- I have ſometimes ordered the *borax* to be mixt with clarified *honey* and *currant-jelly* equal parts, inſtead of *honey* alone, and in that manner it makes a more agreeable medicine. Where there is a peculiarity in the conſtitution that *honey* diſagrees, the *borax* may be mixt with either black or red *currant-jelly*, and *Syrup. moror.*

THIS medicine, made milder, has alſo been found by experience, very beneficial in the *Thruſh* attending infants.

Many years ago I attended a young woman in a bad fever, who in the courſe of it had an appearance of the *Thruſh* to a high degree, about the *Anus* as well as in her mouth and throat; and undoubtedly all the alimentary canal was affected; for upon taking this medicine liberally, and keeping her body open, great quantities of thick ſloughs were thrown off by ſtool; and ſhe recovered beyond expectation.

The extraordinary effect of the *Indian-Pink* in deſtroying worms.

July the 7th, 1760.

A POOR widow brought her ſon to me, aged between ten and eleven, much afflicted with worms, and had long been ſo, with almoſt all the ſymptoms produced by thoſe vermin, the *Teretes*, many of which he had lately vomited up. I made an infuſion of thirty grains of the *Indian-Pink* in a quarter of a Pint of boiling water, letting it ſtand by the fire cloſe covered five or ſix hours; and ordered one half of it to be taken at going to bed, and the other next morning; and in the following afternoon he voided by ſtool four worms alive. Next night and morning repeated the doſes; in the afternoon following voided five more alive at one dejection, the *fæces* not altered in their conſiſtence from their natural ſtate. The doſes were repeated the two ſucceeding evenings and mornings; only the infuſion was increaſed one third in its ſtrength; and in each of the following afternoons he diſcharged three worms dead and ſeemingly much ſwelled. After theſe he took two doſes more, but no worms were brought away: he ſoon recovered a good appetite, and was entirely freed from all his complaints.

THIS medicine anſwered the ſame good purpoſe, in another of the woman's children ſome time after.

THEY both agreed in this circumſtance, that upon firſt taking the medicine, they were ſenſible of the motion of the worms downward, as if they fled from it, according to their own expreſſion.

There are four kinds of worms commonly found in the human body; the *Lumbrici* or *Teretes*, whoſe reſidence is generally in the ſmall *inteſtines*:——the *Aſcarides* in the large *inteſtines*:———the *Gourd-Worm*, ſo called from its reſemblance to the ſeed of a gourd:——the *Tænia*, *Tape* or *Solitary Worm*. This latter ſpecies is frequently found among the *Indians* and *Africans*, in *Geneva* and all over *Switzerland*. I am credibly informed that there is a woman at or near *Geneva*, who is poſſeſſed of an infallible ſecret to deſtroy this formidable enemy.

When I was concerned for the poor in *Norwich*, between 30 and 40 years ago, one of the firſt kind eat its way through near the navel of a child about three years old, in the work-houſe. The wound healed without any difficulty, and the child recovered, by taking proper medicines, which brought away a great number of thoſe deſtructive vermin.——See *Andry's* and *Coulet's* treatiſe upon this ſubject: and what Doctor *Tyſon* ſays in the *Philoſ. Tranſ.* concerning the *Tænia*; of which ſort I ſaw one that was voided whole, by a Negro, near 20 feet long.——See Profeſſor *Alſton's* account of the anthelmintic virtue of the powder of Tin, in vol. 5 of the *Edinburgh Med. Eſſays.*——I had a patient who was freed from the *Aſcarides*, by the long continued uſe of Soap and Lime-Water on account of the ſtone in his bladder, when all other means had failed in deſtroying them.

Copy of a letter from a Clergyman concerning the wonderful effect of *Cort Rad Simaroubæ* in curing him of a *Dyſentery*, after all other means, commonly uſed in that diſeaſe, had failed.

Dear Sir,

Long-Stratton,
Nov. 23d, 1763.

I HERE ſend you the beſt hiſtory I am able to compoſe, at this diſtance of time, it being now above ten years ſince I was firſt afflicted with the *Bloody-Flux*; therefore whatever inaccuracies you ſhall obſerve, you will be pleaſed to paſs them over; and if you can diſcover any thing which will be of ſervice to others, I ſhall think myſelf ſufficiently rewarded for my trouble.

I am, dear Sir,
Your much obliged Servant,
EDWARD HIBGAME.

Hiſtory

Hiſtory of the caſe.

In *October* 1752 I was at *Canton* in *China*, and after drinking too freely of white-port-wine one evening, the next day I was ſeized with a violent *Flux*, which after continuing two days turned to the *Bloody-Flux*.——I immediately applied to our Ship-Surgeon, and he preſcribed me vomits of *Ipecacoanha* for three ſucceſſive evenings. I then took *Ipecacoanha* in ſmall doſes, in white wine every four hours; thus I went on for two months; and in that time I was let blood twice or thrice.—After this our ſhip ſailed for *England*, and the Surgeon finding my diſeaſe rather increaſed, he determined to try another method.——After letting me blood, he gave me every other day a ſmall quantity of the *Calamine-Stone* well levigated; this I continued for one month, taking the *Ipecac.* as before; but on my complaining of the violence of this new medicine, he omitted it, and gave me ſome doſes of *Armenian Bole* every day; but neither the *Ipecac. Calamine* or *Bole* had any effect in abating my *Flux.*——For one month before we arrived in *England* all medicines were laid aſide, neither had I recourſe to any till *Auguſt*, when finding the *Flux* increaſing, my ſtrength decreaſing, and my appetite loſt, I was adviſed to take pills compoſed of mutton-tallow and bees-wax twice a day, as many as my ſtomach wou'd bear, with a glaſs of red port wine with a few drops of *Tinct. Terræ japon.* after each doſe, which I thought helped my appetite; but I cou'd diſcover no abatement of the *Flux.*——At this time I applied to a Surgeon at home, who adviſed the uſe of the *Bark* with *Rhubarb, Stomach Drops, Sago, Rice, &c.*——I then conſulted a Phyſician, who firſt preſcribed the teſtaceous powders with bees-wax, then the *Cerat. Vit. Antimon.* but neither of theſe medicines agreed with me.—-I then took a medicine prepared by Mr. *H——n* of *B——g* in *Eſſex*, at the recommendation of a very worthy Gentleman, which, together with the warm weather, gave me relief for that ſummer, before which time I had not had any intermiſſion in my diſeaſe from 1752 to 1755.——The autumn following it returned again with greater violence, ſo that I had not leſs than 30 or 36 ſtools in 24 hours, for more than three months, attended with a ſmarting pain in the lower *inteſtines*, like that of a wound; but I conſtantly obſerved it was more intenſe every afternoon about four o'clock.——I ſhou'd have obſerved, that for two years before, I had been afflicted with this pungent pain, though not in ſo great a degree, that I had voided much blood with *mucus*, and that every ſtool was attended with violent hickups.——I now had recourſe to the teſtaceous powders, and the above-mentioned medicine of Mr. *H.* alſo to the *Bark*, and *Helvetius's* Tincture, and thought ſome of theſe medicines ſerved to abate the diſtemper, but cannot ſay which of them it was. ——In the ſummer 1756 I was tolerably well, but in the autumn the flux returned as violently as ever, attended with the before mentioned circumſtances; I then took half a pint thrice a day of the following medicine. Two pounds of mutton-tallow boiled in a quart of milk to a pint and ſtrained. From this remedy I received great benefit; the diſcharge of blood and *mucus* leſſened by the uſe of it very much, and I found a great abatement of the pain in the *inteſtines.*——In the ſummer 1757 I held pretty well, but in autumn the *Flux* returned, though not altogether with its former violence. Being then at College, and not having ſo good an opportunity of having the tallow medicine prepared for me as at home, I took a ſtrong decoction of the *Bark* and Pomgranate ſhells, which did me ſervice, and for the remaining part of the winter and ſummer 1758, I continued pretty free from the *Flux*; but in the autumn it returned very violently again, I not having leſs than 20 or 24 ſtools in 24 hours, attended with the uſual ſymptoms; I then recurred to the decoction of the *Bark*, but the effect did not anſwer my expectation.—In the ſummer 1759 I drank freely of *Florence* wine, which, together with a dry ſeaſon, made me flatter myſelf with being almoſt cured; but in the autumn following I was as ill as at any time before.—I then took large quantities of the *Bark* in ſubſtance, and eat boiled rice very plentifully for two months at leaſt; and after taking a bark-bolus one morning and eating a quantity of boiled rice, I had a violent pain in my ſtomach, which increaſed and ſettled, fixing at laſt in the lower belly, where it continued very violent; on which account I drank uſquebaugh, pepper-mint-water and rum, in all I believe near a pint, without any effect only making me very ſick; I went to bed, and the pain rather increaſing, took a doſe of liquid laudanum, but threw it up inſtantly; I then ſent for an Apothecary, who gave me a common clyſter, by which I found ſome relief, but it was of ſhort duration; the pain returned and continued all night, next morning I had another clyſter given me, which, with the application of warm flannels, &c. relieved me much; next day I was free from pain; and had only one ſtool during the continuance of this new complaint.——I now continued growing better, was pretty free from my *Flux* till autumn 1760, when it returned with its uſual violence.——I then took Doctor *Hill's* butter-medicine, which is two or three ſpoonfuls of melted butter thrice a day; from which I found great benefit.——The ſummer 1761, I continued pretty well; but in the autumn my old complaint viſited me again; I then repeated the butter-medicine, but was diſappointed in its effect. I next took the *Bark* with ſuch ſucceſs, that I ſoon thought myſelf almoſt entirely free from the *Flux*; but the *April* following, upon taking cold it returned and continued all the following ſummer to a great degree.——After having to no purpoſe, given the *Bark*, the tallow-medicine, and others which uſed to relieve me, a fair trial, I applied to you.—At this time I had not leſs than 12 or 14 ſtools in 24 hours, and in this ſtate I had now been for three months.——Your advice to me was to boil two drams of the bark of the *Radix Simaroubæ* * in a pint and a quarter of water to a pint; of which decoction when ſtrained, I took two ounces, without any thing added to it, at ſix on *Friday* evening, *October* 1ſt, and the like doſe about eleven that night; it had no ſenſible operation, unleſs it promoted perſpiration a little; however, it had this good effect, that my reſt was not once diſturbed by the *Flux* this night. Next morning I repeated the doſe, did the ſame at ſix in the evening and eleven at night; in the day time had but three ſtools, and one in the night, reſting well; ſtools now had neither blood nor *mucus* mixed with them, nor were they attended with pain.——I have obſerved your directions in the uſe of the medicine till the time of writing this letter, though not altogether with that ſtrictneſs I did at firſt; and now, I thank God, let me eat, drink or take what exerciſe I will, in ſhooting or otherwiſe, it is all the ſame: I am quite well, have an exceeding good appetite, and from almoſt a ſkeleton am grown plump and full of fleſh; nor has the moiſt weather this autumn had any effect upon me, which it always uſed to have before, ever ſince the diſeaſe firſt attacked me.

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* See *Lewis* and *Geoffroy* on the *materin medica* concerning this drug.—According to *Monſ. Juſſieu's* account of this drug in the *Mem. of the Royal Acad. of Sciences*, it was brought into *Europe* from *America* in the year 1713, and then uſed in the *Dyſentery*.

N. B. For four months before I was ſeized with this diſeaſe, my common food was nearly the ſame as in *England*, but on account of the exceſſive heat of the country were I then was, I frequently drank more than a gallon of lime juice and water, without any ſpirituous liquor added to it, to which cauſe my diſeaſe was aſcribed, as others who drank ſtrong liquors plentifully kept free from the complaint.

This Gentleman has ever ſince enjoyed perfect good health.—In three other caſes of this nature I have ſeen remarkable good effects from this medicine, after other means had failed.

The treatiſes written a few years ago, particularly on this diſeaſe, by two very learned Phyſicians, Doctor *Baker* and Doctor *Akenſide*, claim the moſt attentive reading for our inſtruction upon this ſubject.

When the Decoction was made ſtronger than I have mentioned, it was found to act too powerfully upon the ſtomach, and did not anſwer the intention.

The ſame Gentleman in the P. S. of another letter to me, dated Sept. the 24th, 1764, writes thus.

I SHALL now make you laugh at my quackery; however, as it is a ſingular inſtance of the virtue of the *Cort. Rad. Simaroubæ*, which wrought ſuch an amazing cure in me, I cou'd not forbear giving you a true relation of it.——Mr. *John Dix*, a reputable farmer in this town, came to me about ten days ago, to inform me he had a cow at the point of death, deſiring I wou'd accept of her for my dogs.—-Upon inquiring into the nature of her diſeaſe, I found it was a *Flux*, or ſcouring as it is called in that ſpecies of cattle, which had been of long ſtanding, and reſiſted all means uſed by the moſt ſkilful leeches.—I own I cou'd not help feeling for the poor creature, well remembering, that till I conſulted you, my ſituation was as bad as her's: I immediately thought of my invaluable ſpecific, and ordered half an ounce of this bark to be bruiſed aud boiled in five half pints of water to a quart, then ſtrained, and that half a pint of the decoction ſhou'd be given her of a gentle warmth, twice a day. After the ſecond doſe the *Flux* abated, and by regularly continuing the medicine a few days, ſhe was freed from the complaint.—My patient appears perfectly cured, eats heartily and is daily recovering ſtrength, from the greateſt degree of weakneſs, to which the violence of the diſeaſe had reduced her.

FINIS.